



# Search Report

## EIC 1700

STIC Database Tracking Number: 236481

**To: MICHAEL BERNSHTEYN**

**Location: REM-10D25**

**Art Unit: 1713**

**Friday, September 14, 2007**

**Case Serial Number: 10/540946**

**From: USHA SHRESTHA**

**Location: EIC1700**

**REM-4B28 / REM-4B31**

**Phone: (571)272-3519**

**usha.shrestha@uspto.gov**

### Search Notes

**Examiner BERNSHTEYN:**

Please see the search results, feel free to contact me if you have any questions or if you like to refine the search query. Thank you for using STIC services!

Regards,  
Usha



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1713

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Ctr.  
SEP 05 RELJ

Access DB# 236481

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Michael Bernshagen Examiner #: 81515 Date: 09/05/07  
Art Unit: 1713 Phone Number 30 272-7411 Serial Number: 10/540,946  
Mail Box and Bldg/Room Location: Rem 10025 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Alkenyl ether compound, polymer compound, composition  
Inventors (please provide full names): Koichi Sato, Ikuro Nakazawa, Sakae Sudo,  
Masayuki Ikegami, Keiichiro Tsubaki, Ryuji Higashi, Keiko Yamaguchi  
Earliest Priority Filing Date: 05/08/2003

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please, try to find alkenyl ether compound of form (1) according to claims 1 and 2; a polymer compound composed of units of formulas (2) or (3); a block polymer of formula (4) according to claims 5-8.

Thank you

M. Bernshagen

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## CLAIMS

1. An alkenyl ether compound comprising an aromatic carboxylic acid having a fluorine atom or an aromatic carboxylic acid ester having a fluorine atom.

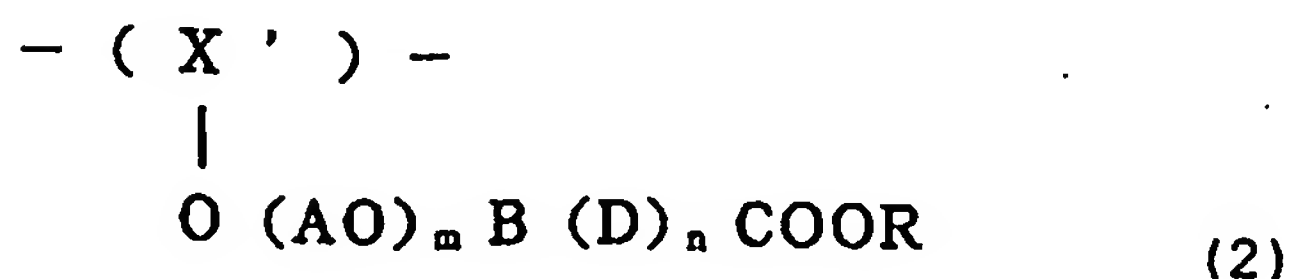
5 2. The alkenyl ether compound according to claim 1, which is represented by the general formula (1):



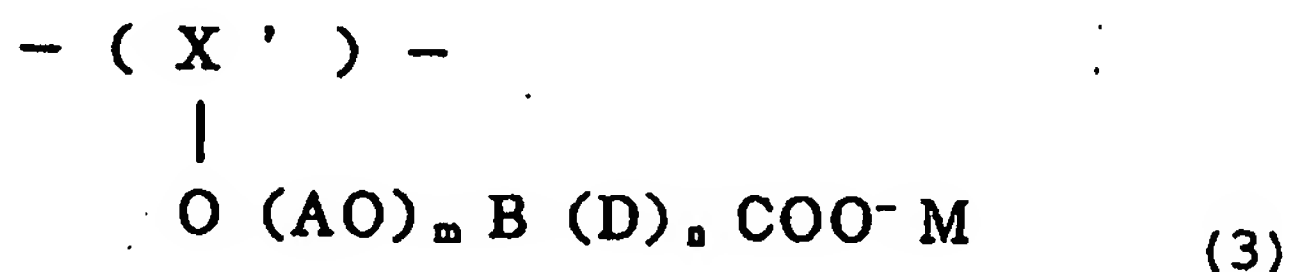
wherein X represents an alkenyl group; each A represents independently a linear or branched alkylene group of 1 to 15 carbon atoms which may be substituted; 10 m represents an integer of 0 to 30; B represents a single bond or an alkylene group which may be substituted; each D represents independently an aromatic ring in which at least one hydrogen atom 15 attached to the ring is replaced by a fluorine atom; n represents an integer of 1 to 10; and R represents a hydrogen atom, an alkyl group which may be substituted, or an aromatic ring which may be substituted.

3. A polymer compound comprising a polyalkenyl ether repeating unit comprising at least one selected 20 from a carboxylic acid, a carboxylic acid ester and a carboxylic acid salt, each having a fluorine atom in a side chain thereof.

4. The polymer compound according to claim 3, 25 which has a repeating unit represented by the general formula (2) or (3):



wherein X' represents a polyalkenyl group; each A represents independently a linear or branched alkylene group of 1 to 15 carbon atoms which may be substituted; 5 m represents an integer of 0 to 30; B represents a single bond or an alkylene group which may be substituted; each D represents independently an aromatic ring in which at least one hydrogen atom attached to the ring is displaced by a fluorine atom; n 10 represents an integer of 1 to 10; and R represents a hydrogen atom, an alkyl group which may be substituted, or an aromatic ring which may be substituted; or



wherein X' represents a polyalkenyl group; each A 15 represents independently a linear or branched alkylene group of 1 to 15 carbon atoms which may be substituted; m represents an integer of 0 to 30; B represents a single bond or an alkylene group which may be substituted; each D represents independently an 20 aromatic ring in which at least one hydrogen atom attached to the ring is displaced by a fluorine atom; n represents an integer of 1 to 10; and M represents a monovalent or polyvalent metal cation.



5. A block polymer comprising a polyalkenyl ether repeating unit comprising an aromatic structure having a fluorine atom in a side chain thereof in at least one block segment.

5           6. The block polymer according to claim 5, wherein the aromatic structure is at least one selected from a carboxylic acid, a carboxylic acid ester and a carboxylic acid salt.

7. The block polymer according to claim 5,  
10 wherein the repeating unit is represented by the general formula (4):

$$-(X')-$$

$$|$$

$$O(AO)_m B(D)_n (COOR)_p \quad (4)$$

15 wherein X' represents a polyalkenyl group; each A represents independently a linear or branched alkylene group of 1 to 15 carbon atoms which may be substituted; m represents an integer of 0 to 30; B represents a single bond or an alkylene group which may be  
20 substituted; each D represents independently an aromatic ring in which at least one hydrogen atom attached to the ring is displaced by a fluorine atom; n represents an integer of 1 to 10; p represents 0 or 1; and COOR represents a carboxylic acid ester, a  
25 carboxylic acid, or a salt of a carboxylic acid anion and a cation.

8. The block polymer according to claim 5,

further comprising a hydrophilic block segment and a hydrophobic block segment.

9. A composition comprising a solvent or dispersing medium, a functional substance, and the  
5 polymer compound set forth in claim 3 or the block polymer set forth in claim 5.

10. The composition according to claim 9, wherein the block polymer includes the functional substance.

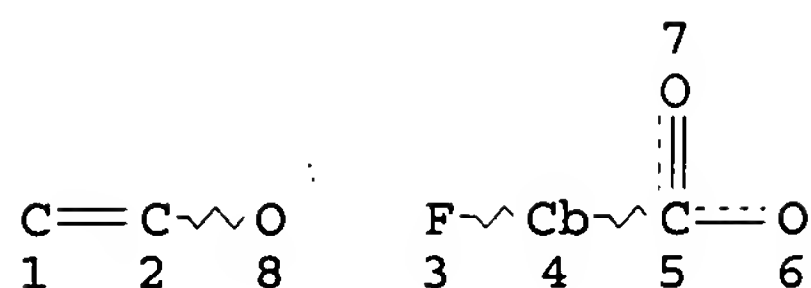
11. The composition according to claim 10,  
10 wherein the functional substance is a coloring material.

12. An image recording method comprising the steps of preparing the composition set forth in claim 11 and recording the composition on a medium.

13. An image recording apparatus comprising a  
15 recording means for recording the composition set forth in claim 11 on a medium.

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L5 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 8

## STEREO ATTRIBUTES: NONE

L7 91 SEA FILE=REGISTRY SSS FUL L5

L11 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

=&gt; d 111 1-32 ibib ed abs hitstr hitind

L11 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:446255 HCAPLUS

DOCUMENT NUMBER: 144:469833

TITLE: Image forming method, and set of ink compositions  
and image forming apparatus, which are applicable  
to the image forming method

INVENTOR(S): Nakazawa, Ikuo; Sato, Koichi; Higashi, Ryuji;  
Suda, Sakae; Ikegami, Masayuki; Tsubaki,  
Keiichiro; Yamagishi, Keiko; Miyauchi, Youhei;  
Oku, Tomoya

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of  
U.S. Ser. No. 557,236.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006100310	A1	20060511	US 2005-312513	20051221
WO 2005085370	A1	20050915	WO 2005-JP4031	20050302
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2006221117	A1	20061005	US 2005-557236	20051117



JP 2006205721 A 20060810 JP 2005-341119 20051125  
 PRIORITY APPLN. INFO.: JP 2004-62968 A 20040305  
 JP 2004-376606 A 20041227  
 WO 2005-JP4031 W 20050302  
 US 2005-557236 A2 20051117  
 JP 2005-341119 A 20051125

ED Entered STN: 12 May 2006

AB An image forming method in which at least two kinds of ink compns. are applied onto a recording medium to form an image on the recording medium, comprises the steps of: providing a first ink composition containing a solvent, a coloring material and a block polymer having at least an anionic block segment for dispersing the pigment in the solvent, and a second ink composition containing a solvent, a dye and a polyvalent metal ion having reactivity with the block polymer; and applying the first ink composition and the second ink composition onto the recording medium to bring the first ink composition into contact with the second ink composition. Thus, a block copolymer is formed by hydrolyzing diethylene glycol Me vinyl ether-Et 4-(2-vinyloxy)ethoxybenzoate-2-(4-methylphenoxy)ethyl vinyl ether diblock copolymer in aqueous NaOH at 0 °C for 3 days.

IT 864358-56-5

(ink-jet ink containing block copolymer)

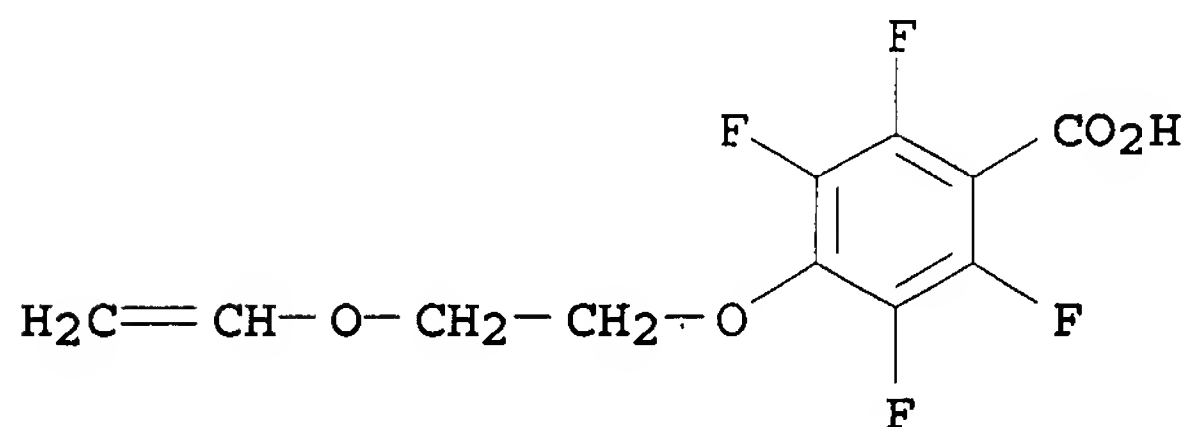
RN 864358-56-5 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, magnesium salt, polymer with [2-(ethenyloxy)ethoxy]-1,1'-biphenyl and 1-(ethenyloxy)-2-methylpropane, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 864358-55-4

CMF C11 H8 F4 O4 . 1/2 Mg



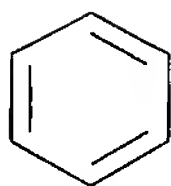
● 1/2 Mg

CM 2

CRN 800378-04-5

CMF C16 H16 O2

CCI IDS



D1- Ph

CM 3

CRN 109-53-5

CMF C6 H12 O



INCL 523160000; 523161000

CC 42-12 (Coatings, Inks, and Related Products)

IT 864358-54-3 864358-56-5

(ink-jet ink containing block copolymer)

L11 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:100313 HCAPLUS

DOCUMENT NUMBER: 144:202246

TITLE: Monomer compositions, coating compositions, optical films, polarizers, and display devices

INVENTOR(S): Yoshizawa, Masataka; Tomita, Hidetoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006028409	A	20060202	JP 2004-211657	20040720
PRIORITY APPLN. INFO.:			JP 2004-211657	20040720

ED Entered STN: 03 Feb 2006

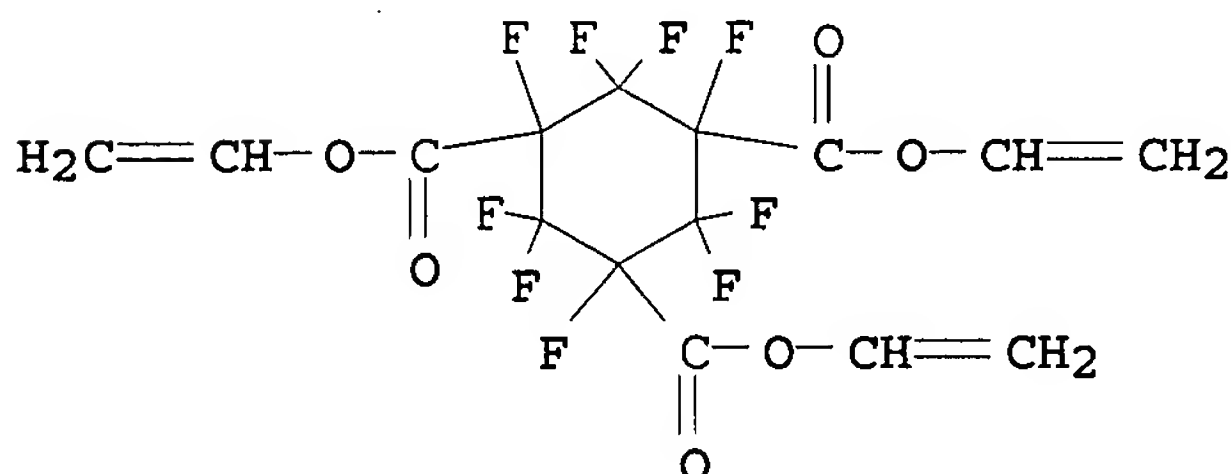
AB The monomer and coating compns. comprise (A) F-containing polyfunctional monomers having  $\geq 2$  polymerizable groups and (B) hollow SiO<sub>2</sub> fine particles. The optical films have cured layers of the compns. Antireflective films having the cured layers as low-refractive-index layers and  $\geq 1$  other functional layers are also claimed. The polarizers have the antireflective films at least as one of protective films. The display devices such as LCD and electroluminescent displays have the antireflective films or the polarizers as the outermost layers. The compns. give films with low refractive index and high scratch resistance.

IT 874907-29-6DP, polymers with propenyl-terminated siloxanes

(fluoro monomer compns. for scratch-resistant antireflective films  
in polarizers of displays)

RN 874907-29-6 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, 1,2,2,3,4,4,5,6,6-nonafluoro-,  
triethenyl ester (9CI) (CA INDEX NAME)

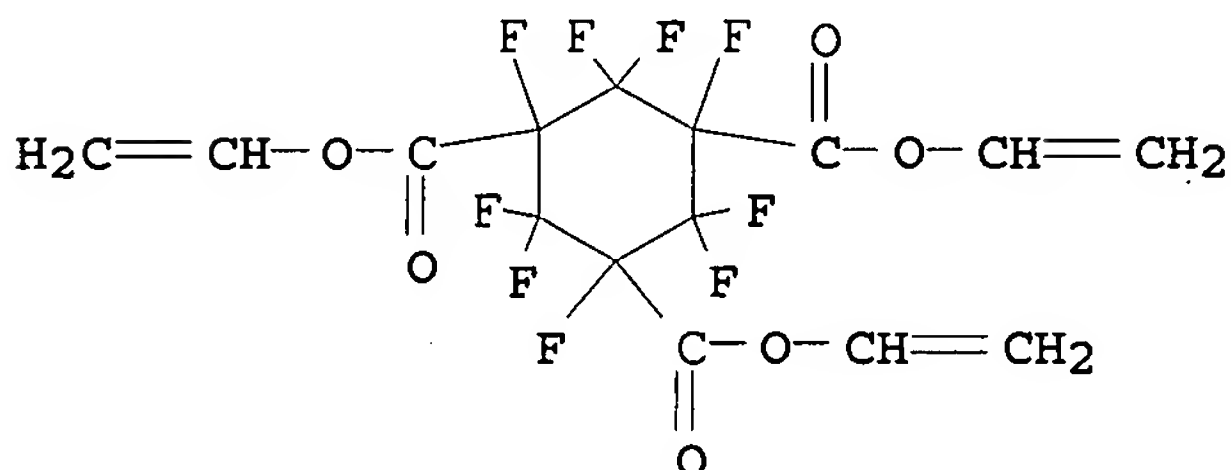


IT 874907-29-6P

(fluoro monomer compns. for scratch-resistant antireflective films  
in polarizers of displays)

RN 874907-29-6 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, 1,2,2,3,4,4,5,6,6-nonafluoro-,  
triethenyl ester (9CI) (CA INDEX NAME)



CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

Section cross-reference(s): 38, 73

IT 194877-45-7DP, polymers with propenyl-terminated siloxanes

874907-29-6DP, polymers with propenyl-terminated siloxanes

874907-30-9DP, polymers with propenyl-terminated siloxanes

(fluoro monomer compns. for scratch-resistant antireflective films  
in polarizers of displays)

IT 874907-29-6P 874907-30-9P

(fluoro monomer compns. for scratch-resistant antireflective films  
in polarizers of displays)

L11 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:100198 HCAPLUS

DOCUMENT NUMBER: 144:202245

TITLE: Fluorine-containing polyfunctional monomer,  
fluoropolymer, antireflection film and display  
device

INVENTOR(S): Tomita, Hidetoshi; Yoshizawa, Masataka; Hosokawa,  
Takashi; Ito, Takayuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006028280	A	20060202	JP 2004-206875	20040714
PRIORITY APPLN. INFO.:			JP 2004-206875	20040714

ED Entered STN: 03 Feb 2006

AB The monomer with F content  $\geq 35.0$  weight% (of the mol. weight) has  $\geq 3$  polymerizable groups and its polymer has calculated mol. weight (M) between crosslinkins  $\leq 300$  [M is mol. weight of groups sandwiched between A and A, B and B, or A and B (A = C atom substituted with  $\geq 3$  C and/or Si; B = Si atom substituted with  $\geq 3$  C and/or Si)]. The antireflection film having low refractive layer formed. by curing a composition containing the monomer, and the display device using the film are also claimed. The film has low refractive index, hardness, abrasion and stain resistance.

IT 874907-31-0P

(crosslinked fluoropolymer for low refractive layer of antireflective film)

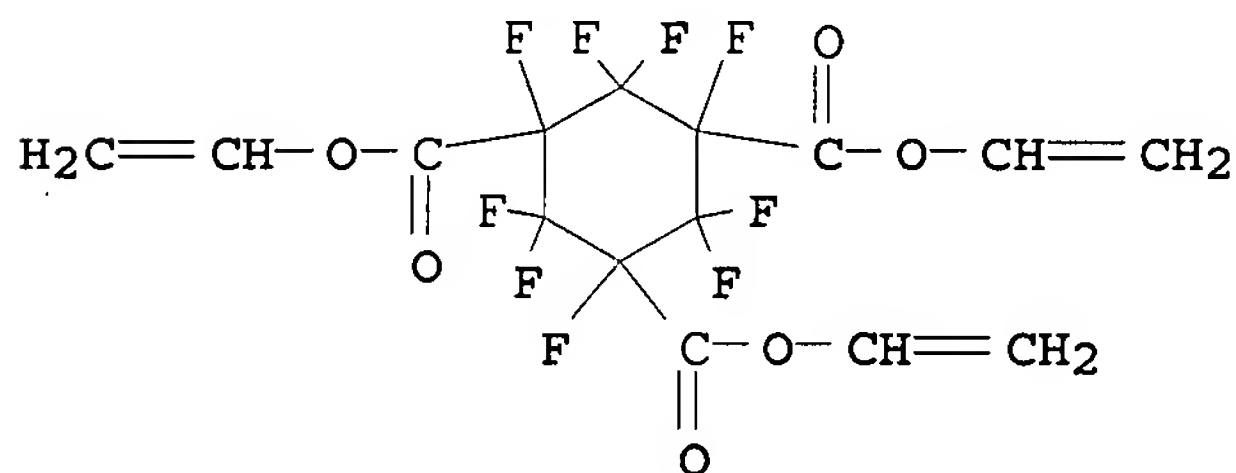
RN 874907-31-0 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, 1,2,2,3,4,4,5,6,6-nonafluoro-, triethenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 874907-29-6

CMF C15 H9 F9 O6

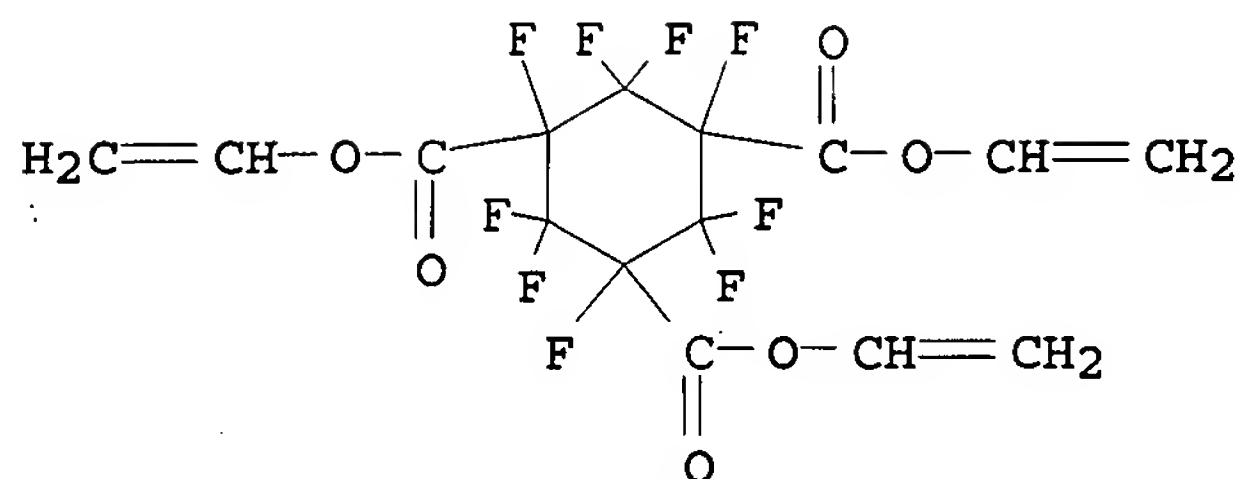


IT 874907-29-6P

(preparation and polymerization of)

RN 874907-29-6 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, 1,2,2,3,4,4,5,6,6-nonafluoro-, triethenyl ester (9CI) (CA INDEX NAME)



CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 874907-31-0P 874907-32-1P 874907-34-3P 874907-36-5P  
874907-38-7P 874907-40-1P

(crosslinked fluoropolymer for low refractive layer of antireflective film)

IT 874907-29-6P 874907-30-9P  
(preparation and polymerization of)

L11 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1004837 HCAPLUS

DOCUMENT NUMBER: 143:288093

TITLE: Apparatus and method for jet-printing with two-package inks sets

INVENTOR(S): Sato, Koichi; Nakazawa, Ikuo; Higashi, Ryuji;  
Suda, Sakae; Ikegami, Masayuki; Tsubaki, Keiichiro; Yamagishi, Keiko

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005085370	A1	20050915	WO 2005-JP4031	20050302
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2005280352	A	20051013	JP 2005-57997	20050302
US 2006221117	A1	20061005	US 2005-557236	20051117
US 2006100310	A1	20060511	US 2005-312513	20051221
PRIORITY APPLN. INFO.:			JP 2004-62968	A 20040305
			JP 2004-376606	A 20041227

WO 2005-JP4031 W 20050302

US 2005-557236 A2 20051117

JP 2005-341119 A 20051125

ED Entered STN: 16 Sep 2005

AB In an image forming method which imparts two or more kinds of liquid compns. onto a recording medium to form an image on the recording medium, the image forming method has the steps of: preparing a plurality of liquid compns. which include at least a first liquid composition containing

a colorant, an anionic amphiphilic polymer and a liquid medium and a second liquid composition containing a colorant, a polyvalent cation, an anionic amphiphilic polymer and a liquid medium; at least one of the polymers in the first liquid composition and the polymers in the second liquid composition being

a block polymer or a graft polymer; and imparting the first liquid composition and the second liquid composition onto the recording medium to

bring the first liquid composition and the second liquid composition into contact with

each other to cause at least one of these liquid compns. to thicken. This system provides images with good fixing performance and decreased color blurring. In a typical example, 1 ink contained C.I. Pigment Red 122 3, 200:30 iso-Bu vinyl ether (I)-Na 4-(2-vinyloxyethoxy)benzoate diblock copolymer 5, diethylene glycol (II) 15, and water 178 parts and the 2nd ink contained Mogul-L black pigment 3, diblock copolymer (100:15 A/B blocks, A block contains I and 1-biphenyloxy-2-vinyloxyethane and B block is based on Mg 4-(2-vinyloxyethoxy)benzenesulfonate) 5, II 15, and water 178 parts.

IT 864358-56-5P, 1-Biphenyloxy-2-vinyloxyethane-isobutyl vinyl ether-magnesium 4-(2-vinyloxyethoxy)-2,3,5,6-tetrafluorobenzoate diblock copolymer

(apparatus and method for jet-printing with two-package inks sets having anionic amphiphilic polymers in both inks and polyvalent cations in 1 ink for decreasing color blurring)

RN 864358-56-5 HCAPLUS

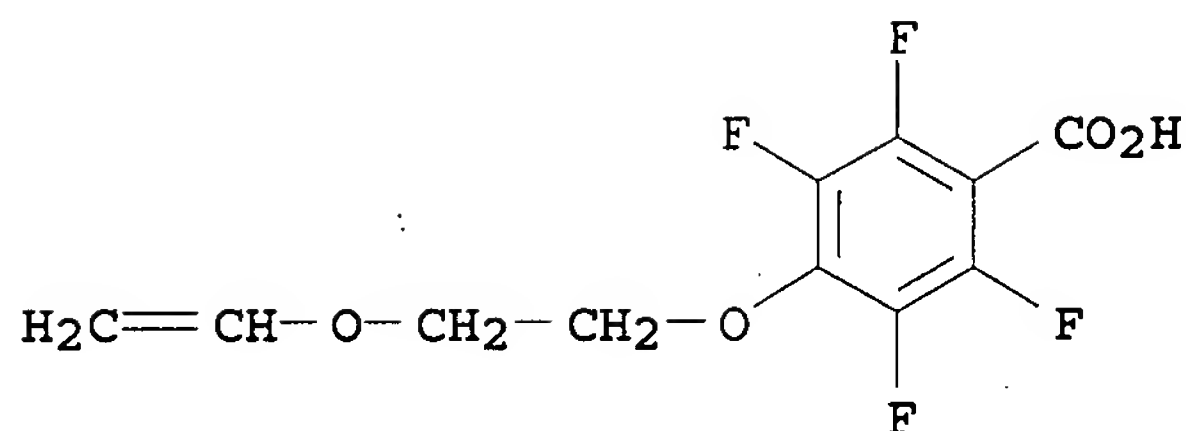
CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, magnesium salt, polymer with [2-(ethenyloxy)ethoxy]-1,1'-biphenyl and 1-(ethenyloxy)-2-methylpropane, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 864358-55-4

CMF C11 H8 F4 O4 . 1/2 Mg

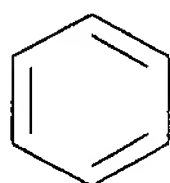




● 1/2 Mg

CM 2

CRN 800378-04-5  
CMF C16 H16 O2  
CCI IDS


$$\text{D1-O-CH}_2\text{-CH}_2\text{-O-CH=CH}_2$$

D1- Ph

CM 3

CRN 109-53-5  
CMF C6 H12 O

$$i\text{-BuO}-\text{CH}=\text{CH}_2$$

IC ICM C09D011-00  
ICS B41M005-00; B41J002-21

CC 42-12 (Coatings, Inks, and Related Products)

IT 805326-36-7P, Isobutyl vinyl ether-sodium 4-(2-vinyloxyethoxy)benzoate diblock copolymer 805326-38-9P, Isobutyl vinyl ether-sodium 6-(2-vinyloxyethoxy)hexanoate diblock copolymer 805326-46-9P, 2-Ethoxyethyl vinyl ether-sodium 4-(2-vinyloxyethoxy)benzoate diblock copolymer 864358-54-3P, 1-Biphenyloxy-2-vinyloxyethane-isobutyl vinyl ether-sodium 5-(2-vinyloxyethoxy)isophthalate diblock copolymer **864358-56-5P**, 1-Biphenyloxy-2-vinyloxyethane-isobutyl vinyl ether-magnesium 4-(2-vinyloxyethoxy)-2,3,5,6-tetrafluorobenzoate diblock copolymer 864358-58-7P, 1-Biphenyloxy-2-vinyloxyethane-isobutyl vinyl ether-magnesium 4-(2-vinyloxyethoxy)benzenesulfonate diblock copolymer 864358-59-8P, 1-Biphenyloxy-2-vinyloxyethane-

isobutyl vinyl ether-2-methoxyethyl vinyl ether-sodium  
 4-(2-vinyloxyethoxy)benzoate triblock copolymer 864358-60-1P,  
 2-(4-Methylphenoxy)ethyl vinyl ether-sodium 4-(2-  
 vinyloxyethoxy)benzoate diblock copolymer 864358-61-2P,  
 1-Biphenyloxy-2-vinyloxyethane-isobutyl vinyl ether-2-methoxyethyl  
 vinyl ether-sodium 4-(2-vinyloxyethoxy)benzenesulfonate triblock  
 copolymer 864358-62-3P, 1-Biphenyloxy-2-vinyloxyethane-diethylene  
 glycol methyl vinyl ether-isobutyl vinyl ether-sodium  
 4-(2-vinyloxyethoxy)benzenesulfonate triblock copolymer

(apparatus and method for jet-printing with two-package inks sets having  
 anionic amphiphilic polymers in both inks and polyvalent cations in  
 1 ink for decreasing color blurring)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L11 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:587459 HCAPLUS

DOCUMENT NUMBER: 143:106470

TITLE: Liquid crystal compositions, compounds with low  
 refractive index anisotropy therefor, polymers and  
 polymer compositions therefrom, films and articles  
 therefrom, and displays therewith

INVENTOR(S): Kato, Takashi; Ito, Maiko

PATENT ASSIGNEE(S): Chisso Corp., Japan; Chisso Petrochemical  
 Corporation

SOURCE: Jpn. Kokai Tokyo Koho, 72 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005179557	A	20050707	JP 2003-424376	20031222
PRIORITY APPLN. INFO.:			JP 2003-424376	20031222

ED Entered STN: 08 Jul 2005

GI

R? — (A-Z)<sub>m</sub> — A — R?

R? — Y — (A-Z)<sub>m</sub> — A — R?

I

II

AB Claimed are compds. Ra(AZ)<sub>m</sub>ARb (I) or RcY(AZ)<sub>m</sub>ARb (II) [Ra =  
 Rd<sub>2</sub>C:C(Rd)O, Rd<sub>2</sub>C:C(Rd)CO, Rd<sub>2</sub>C:C(Rd)CO<sub>2</sub>, oxiranyl, Q1, Q2 [Rd = H,  
 halo, (halogenated) C1-5 alkyl; all Rd ≠ H]; Rb = H, halo, CF<sub>3</sub>,  
 CF<sub>2</sub>H, CFH<sub>2</sub>, OCF<sub>3</sub>, OCF<sub>2</sub>H, NCO, NCS, (halogenated) C1-20 alkyl; CH<sub>2</sub> in  
 the alkyl may be substituted with O, S, CO, CO<sub>2</sub>, OCO, CH:CH, CF:CF, or  
 C.tplbond.C; Rc = Rd<sub>2</sub>C:C(Rd)O, Rd<sub>2</sub>C:C(Rd)CO, Rd<sub>2</sub>C:C(Rd)CO<sub>2</sub>, oxiranyl,  
 Q1, Q2 [Rd = H, halo, (halogenated) C1-5 alkyl]; A =  
 1,4-cyclohex(en)ylene, 1,4-phenylene, tetrahydronaphthalene-2,6-diyl,  
 bicyclo[2.2.2]octane-1,4-diyl [in the rings, CH<sub>2</sub> and CH: may be  
 substituted with O and N:, resp.; H may be substituted with halo, C1-5  
 (halo)alkyl]; Y = C1-20 alkylene; CH<sub>2</sub> may be substituted with O, S,  
 CO<sub>2</sub>, OCO; Z = single bond, (CH<sub>2</sub>)<sub>n</sub>, O(CH<sub>2</sub>)<sub>n</sub>, (CH<sub>2</sub>)nO, O(CH<sub>2</sub>)nO, CH:CH,

C.tplbond.C, CO<sub>2</sub>, OCO, (CF<sub>2</sub>)<sub>2</sub>, C.tplbond.CCO<sub>2</sub>, OCOC.tplbond.C, CH:CH(CH<sub>2</sub>)<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>CH:CH, CF:CF, C.tplbond.CCH:CH, CH:CHC.tplbond.C, OCF<sub>2</sub>, CF<sub>2</sub>O [n = 1-20; m = 1-6; with the proviso that when m = 1 or 2, Rc = acryloxy, and A = 1,4-phenylene and Z = OCO in AZ next to Y, then Rb ≠ alkyl(oxy)]]. Liquid crystal compns. containing plural polymerizable compds. including the above are also claimed. The compns. may also contain liquid-crystalline nonpolymerizable compds. Polymers and polymer compns. prepared from I and/or II (or the liquid crystal compns.) and having [Rd<sub>2</sub>CC(Rd)O], [Rd<sub>2</sub>CC(Rd)CO], [Rd<sub>2</sub>CC(Rd)CO<sub>2</sub>], (CH<sub>2</sub>CHO), [CH<sub>2</sub>C(Rd)CH<sub>2</sub>O], and/or Q<sub>3</sub> units are useful for films (e.g., alignment layers) or articles (e.g., optical retarders), showing good optical anisotropy, heat resistance, and mech. strength. Liquid crystal displays containing the polymers or the polymer compns. are also claimed.

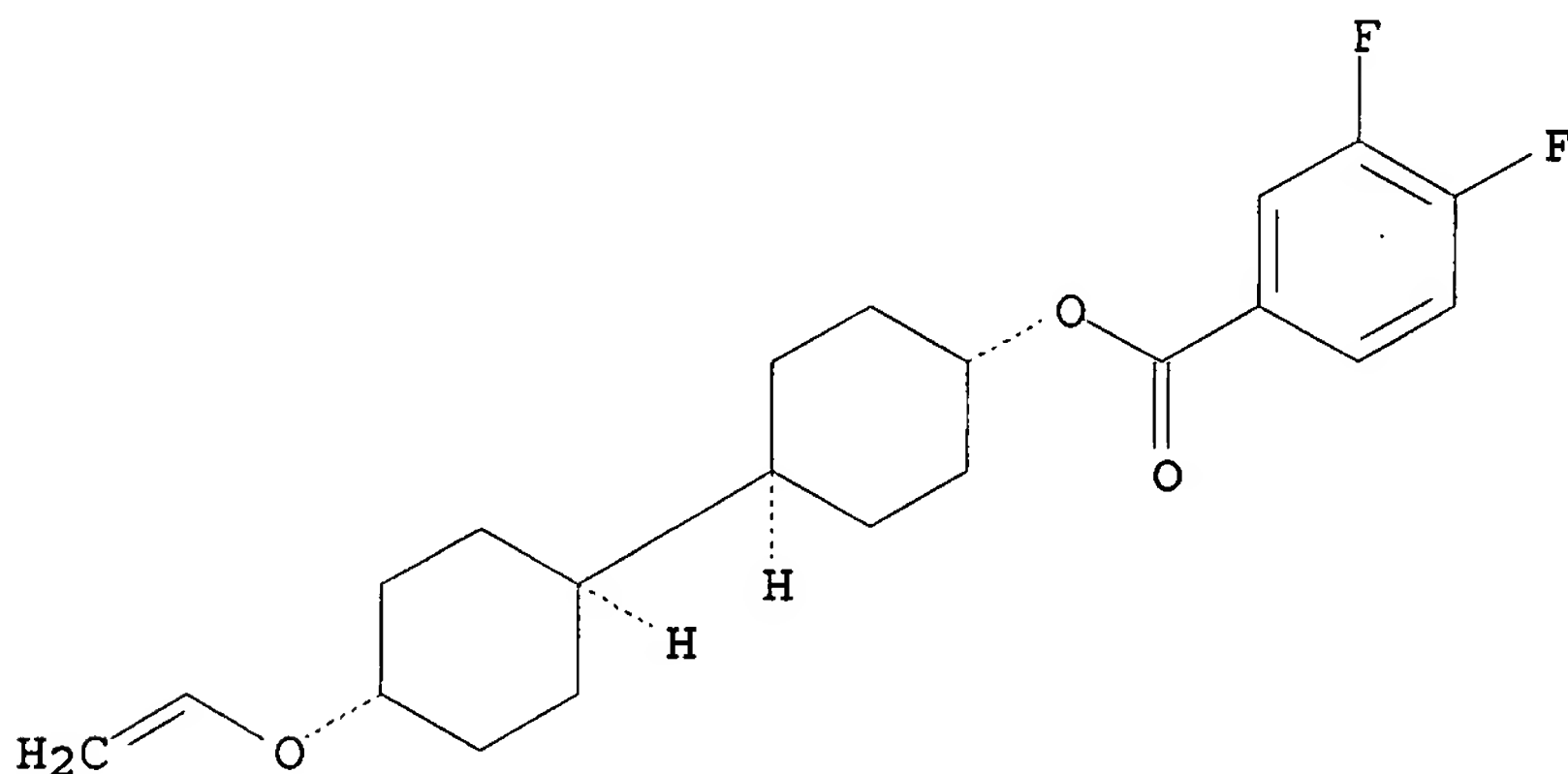
IT 857071-79-5 857072-45-8 857073-87-1

(liquid crystalline monomers; liquid crystal compns./polymers from polymerizable compds. with low refractive index anisotropy useful for LCD retarders or alignment layers)

RN 857071-79-5 HCAPLUS

CN Benzoic acid, 3,4-difluoro-, (trans,trans)-4'-(ethenyloxy)[1,1'-bicyclohexyl]-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

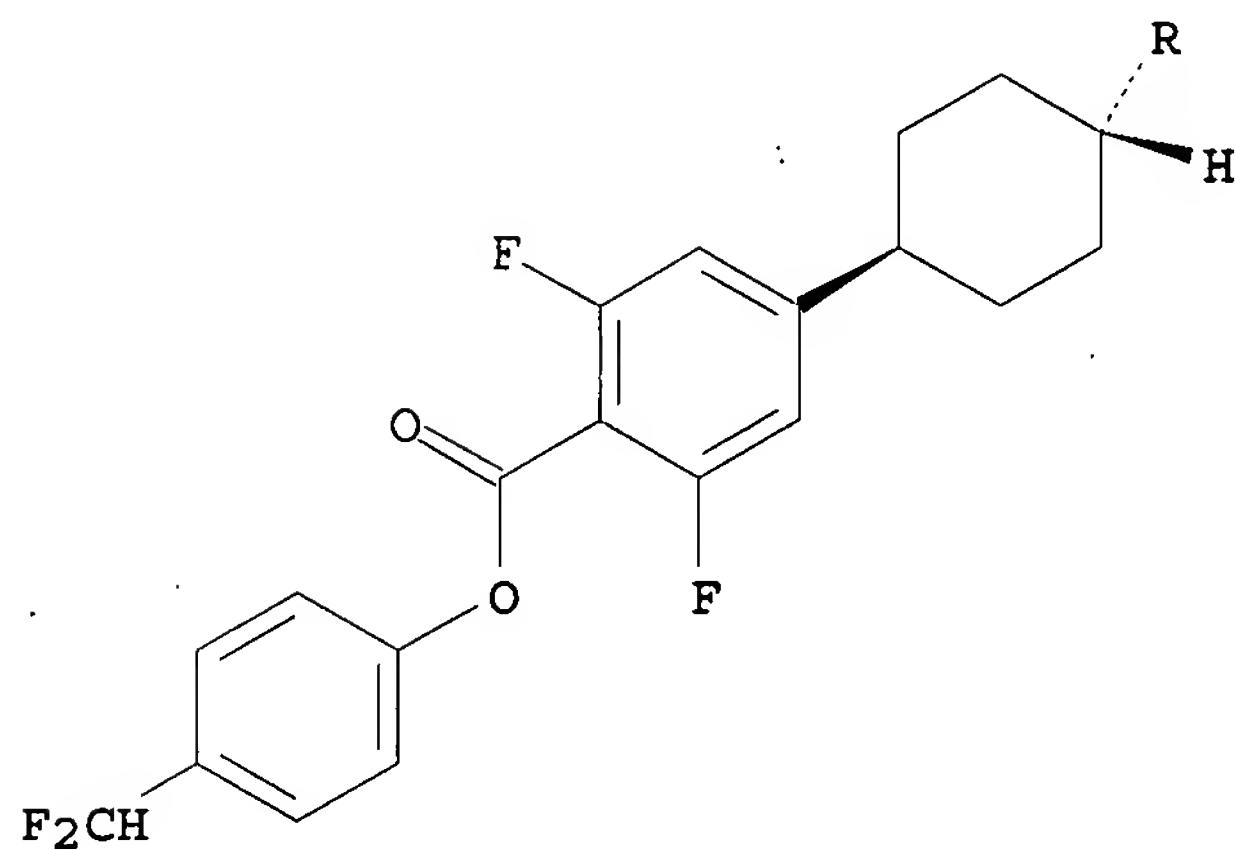


RN 857072-45-8 HCAPLUS

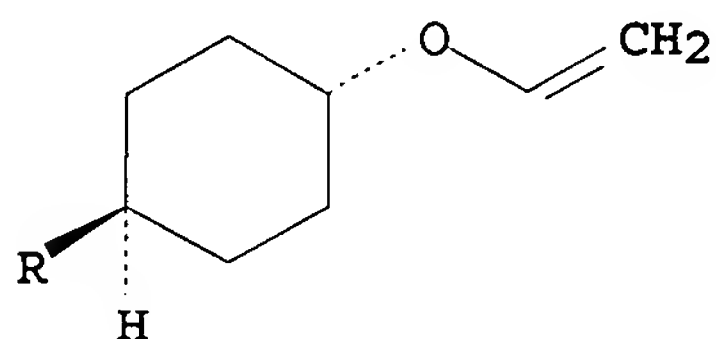
CN Benzoic acid, 4-[(trans,trans)-4'-(ethenyloxy)[1,1'-bicyclohexyl]-4-yl]-2,6-difluoro-, 4-(difluoromethyl)phenyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



PAGE 2-A

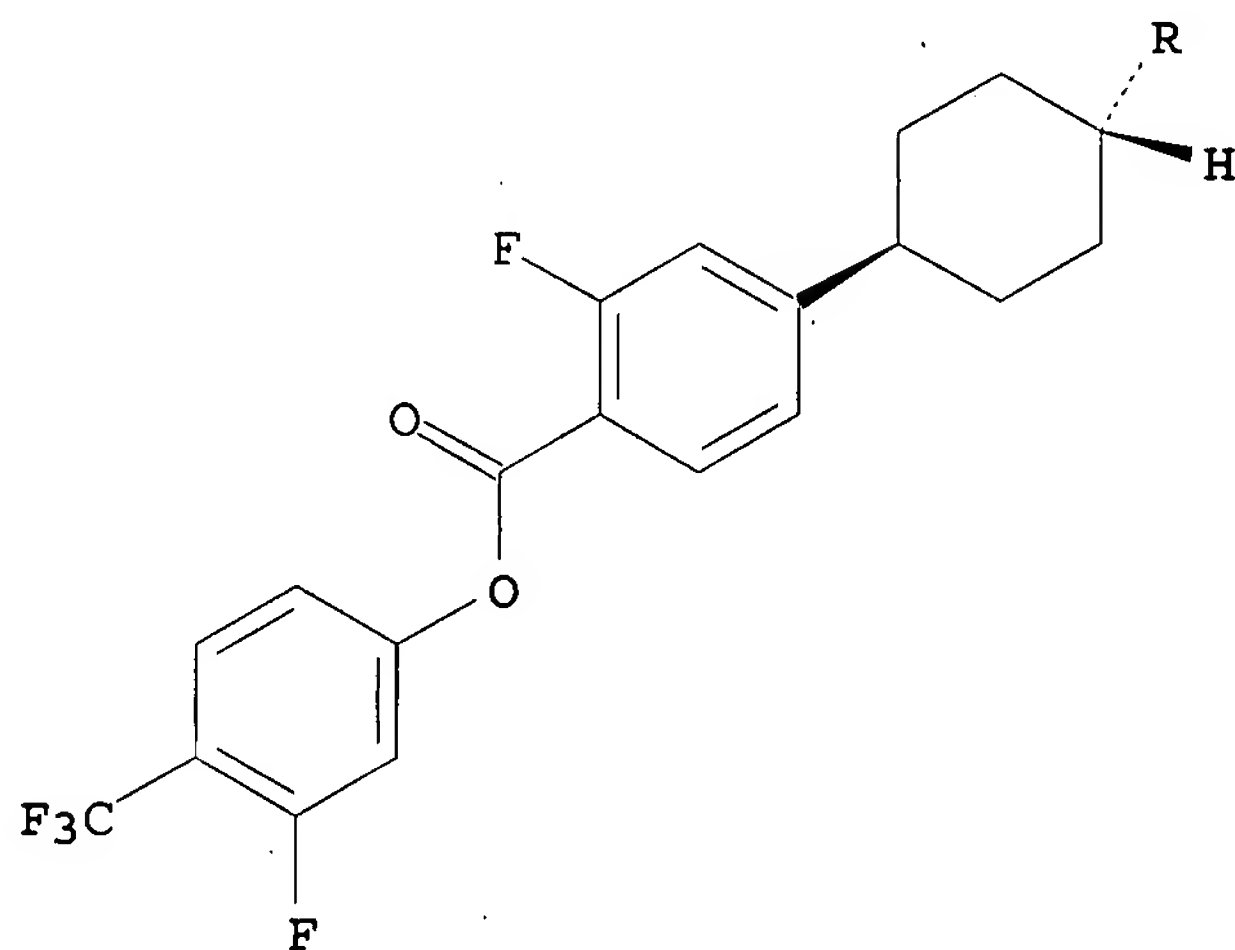


RN 857073-87-1 HCAPLUS

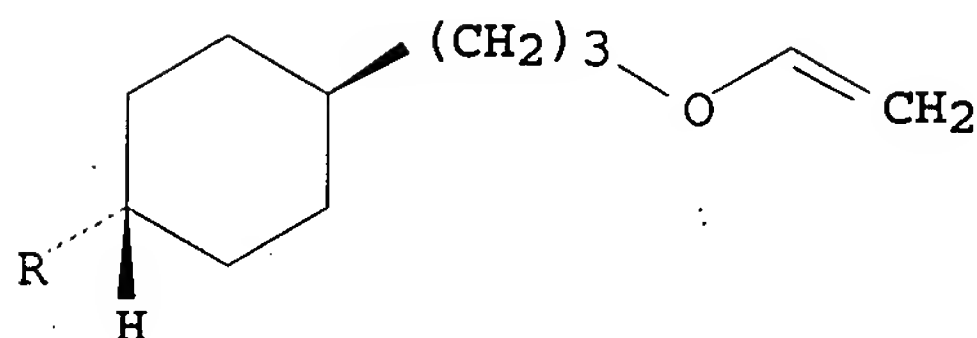
CN Benzoic acid, 4-[(trans,trans)-4'-[3-(ethenyloxy)propyl][1,1'-bicyclohexyl]-4-yl]-2-fluoro-, 3-fluoro-4-(trifluoromethyl)phenyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



PAGE 2-A



IC	ICM	C08F020-22			
	ICS	C07C043-192; C07C049-577; C07C069-54; C07C069-75; C07C069-78;			
		C07D301-14; C07D303-22; C08F020-30; C09K019-38; G02F001-13			
CC	74-13	(Radiation Chemistry, Photochemistry, and Photographic and Other			
		Reprographic Processes)			
		Section cross-reference(s): 35, 38, 73			
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 857073-79-1 857073-80-4 857073-81-5 857073-82-6 857073-83-7  
 857073-84-8 857073-85-9

(liquid crystalline monomers; liquid crystal compns./polymers from  
 polymerizable compds. with low refractive index anisotropy useful  
 for LCD retarders or alignment layers)

IT 857073-86-0 857073-87-1 857073-88-2 857073-89-3  
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 857074-00-1 857074-01-2 857074-02-3 857074-03-4 857074-04-5  
 857074-05-6 857074-06-7

(liquid crystalline monomers; liquid crystal compns./polymers from  
 polymerizable compds. with low refractive index anisotropy useful  
 for LCD retarders or alignment layers)

L11 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1059435 HCAPLUS

DOCUMENT NUMBER: 142:40237

TITLE: Liquid compositions, pH-sensitive inks, method and  
 apparatus using them

INVENTOR(S): Sato, Koichi; Nakazawa, Ikuo; Suda, Sakae;  
 Ikegami, Masayuki; Tsubaki, Keiichiro; Higashi,  
 Ryuji; Yamagishi, Keiko

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106440	A1	20041209	WO 2004-JP7467	20040525
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2005281660	A	20051013	JP 2004-146884	20040517
US 2006146087	A1	20060706	US 2005-537788	20050606
PRIORITY APPLN. INFO.:			JP 2003-149419	A 20030527
			JP 2004-62967	A 20040305
			JP 2004-146884	A 20040517
			WO 2004-JP7467	W 20040525

ED Entered STN: 10 Dec 2004

AB A liquid composition set is suitable for jet printing for forming an image or pattern by functional substances such as a colorant without causing



blurring. Each of the liquid compns. of the set comprises a functional substance, an amphiphilic block copolymer or graft copolymer having an organic acid group, and a liquid medium, wherein the organic acid groups of the copolymers are different in pKa, and the amphiphilic polymer contained in the first liquid composition becomes viscous by pH change on contact with the second liquid composition different in pH from the first liquid composition

IT 805326-42-5P

(pH-sensitive ink-jet inks containing amphiphilic block copolymers with blurring resistance)

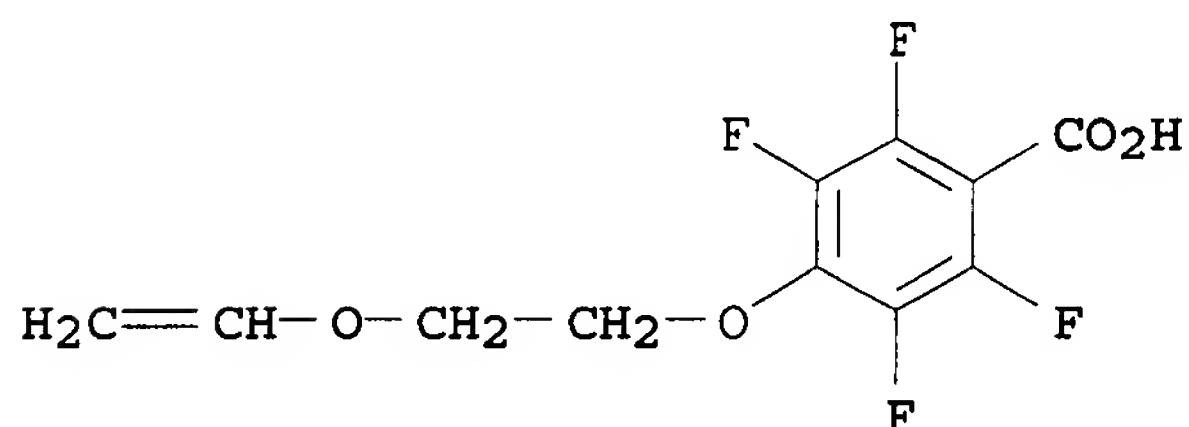
RN 805326-42-5 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, sodium salt, polymer with 4-[2-(ethenyloxy)ethoxy]-1,1'-biphenyl and 1-(ethenyloxy)-2-methylpropane, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 805326-41-4

CMF C11 H8 F4 O4 . Na

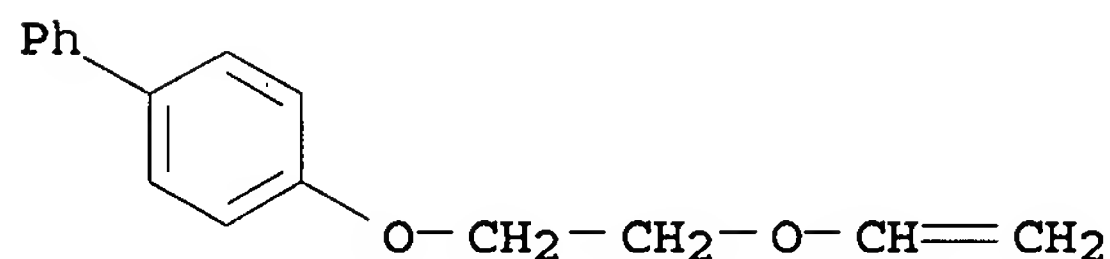


● Na

CM 2

CRN 102534-51-0

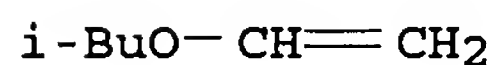
CMF C16 H16 O2



CM 3

CRN 109-53-5

CMF C6 H12 O



IC ICM C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)  
IT 805326-36-7P, Isobutyl vinyl ether-sodium 4-(2-vinyloxyethoxy)benzoate  
diblock copolymer 805326-38-9P, Isobutyl vinyl ether-sodium  
6-(2-vinyloxyethoxy)hexanoate diblock copolymer 805326-40-3P  
805326-42-5P 805326-44-7P 805326-45-8P 805326-46-9P  
(pH-sensitive ink-jet inks containing amphiphilic block copolymers with  
blurring resistance)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L11 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:996229 HCAPLUS

DOCUMENT NUMBER: 141:429628

TITLE: Alkenyl ether polymer compound for ink and toner  
compositions

INVENTOR(S): Sato, Koichi; Nakazawa, Ikuo; Suda, Sakae;  
Ikegami, Masayuki; Tsubaki, Keiichiro; Higashi,  
Ryuji; Yamagishi, Keiko

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

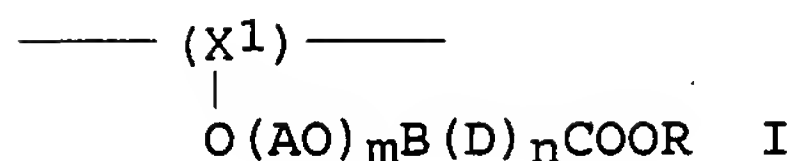
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099264	A1	20041118	WO 2004-JP6348	20040430
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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,				
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR,				
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,				
MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,				
SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,				
VN, YU, ZA, ZM, ZW				
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AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,				
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,				
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,				
GW, ML, MR, NE, SN, TD, TG				
JP 2005097529	A	20050414	JP 2004-130295	20040426
US 2006178468	A1	20060810	US 2005-540946	20050629
PRIORITY APPLN. INFO.:			JP 2003-129997	A 20030508
			JP 2003-307618	A 20030829
			JP 2004-130295	A 20040426
			WO 2004-JP6348	W 20040430

OTHER SOURCE(S): MARPAT 141:429628

ED Entered STN: 19 Nov 2004

GI



AB A polymer compound is provided which is suitable to improve the dispersibility of coloring materials or solids in an ink or toner composition and which has a repeating unit represented by the general formula I (X1 = polyalkenyl group; A = C1-15-alkylene; m = 0-30; B = single bond, alkylene; D = fluorine-substituted aromatic ring; n = 1-10; R = H, alkyl, aromatic).

IT 796080-88-1DP, sodium carboxylate reaction products

796080-88-1P 796080-90-5P 796080-94-9P

796080-95-0P 796080-96-1DP, hydrolyzed reaction products, carboxylic acid derivs.

(alkenyl ether polymer compound for ink and toner compns.)

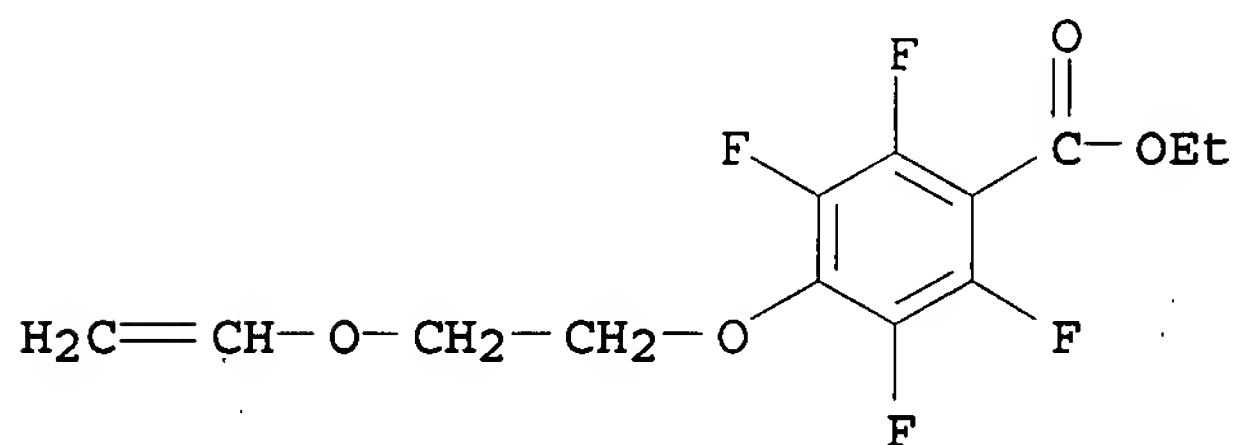
RN 796080-88-1 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 796080-87-0

CMF C13 H12 F4 O4



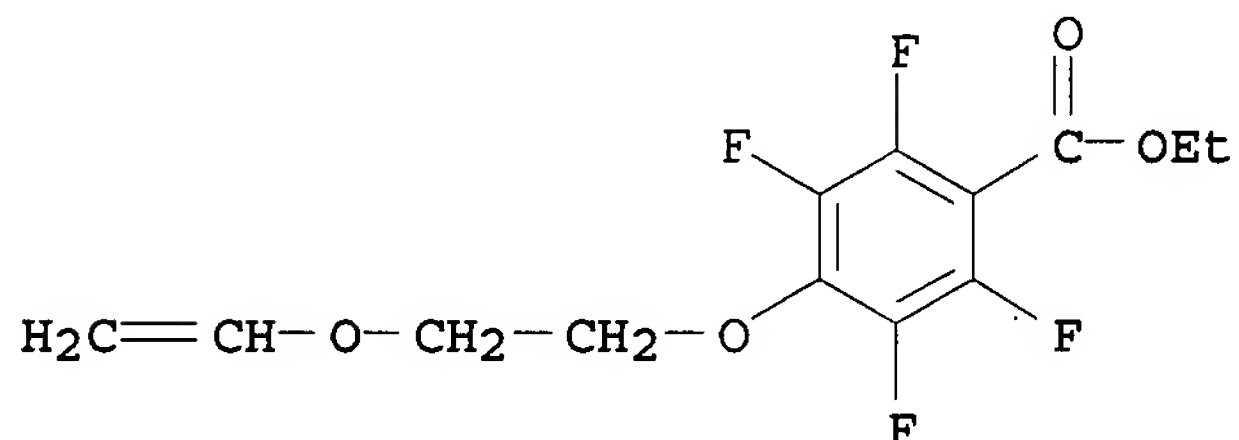
RN 796080-88-1 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 796080-87-0

CMF C13 H12 F4 O4



RN 796080-90-5 HCAPLUS

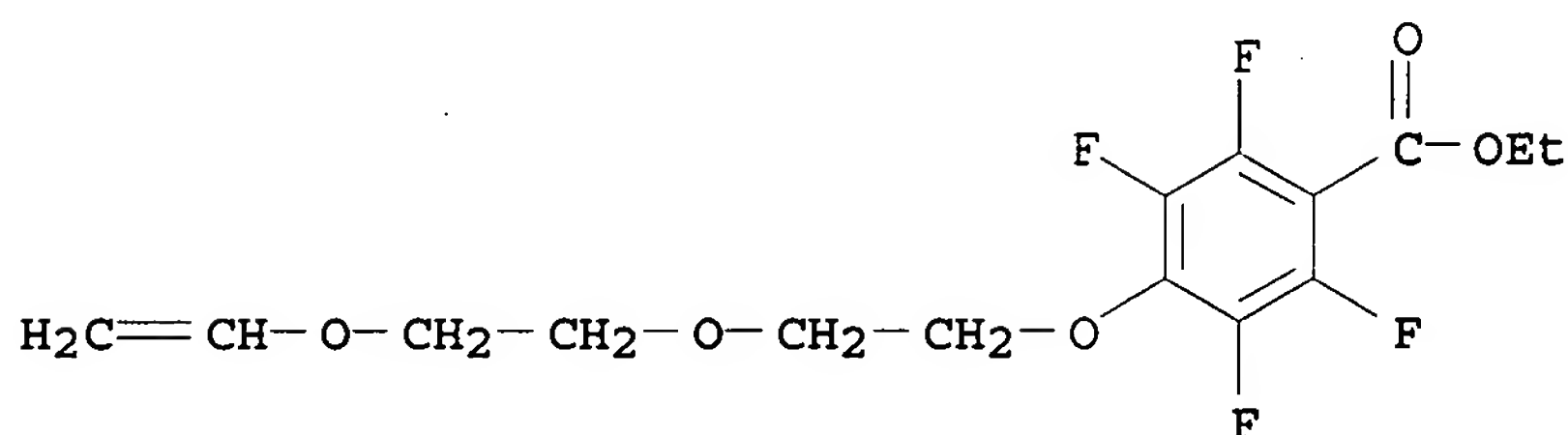
CN Benzoic acid, 4-[2-[2-(ethenyloxy)ethoxy]ethoxy]-2,3,5,6-tetrafluoro-,

ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 796080-89-2

CMF C15 H16 F4 O5



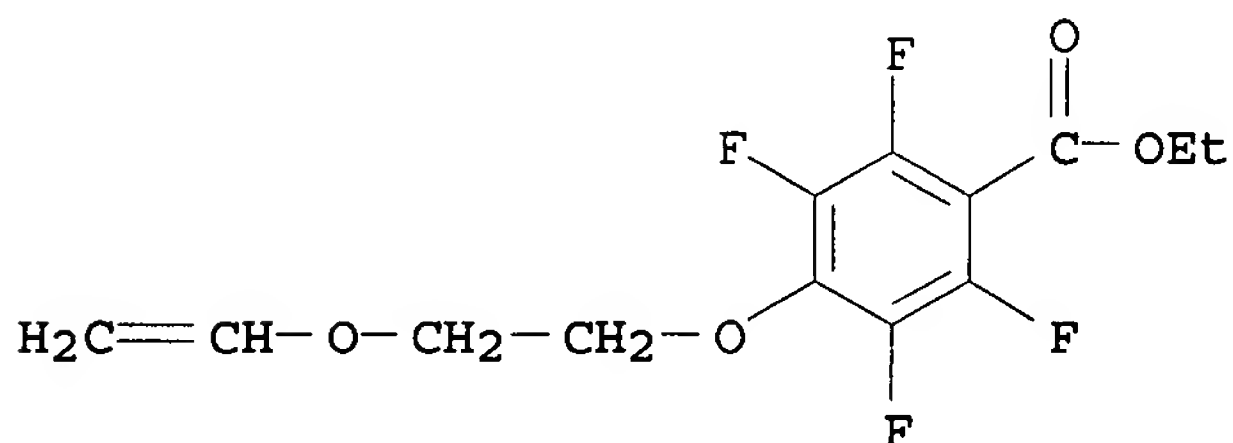
RN 796080-94-9 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, polymer with 4-[2-(ethenyloxy)ethoxy]-1,1'-biphenyl, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 796080-87-0

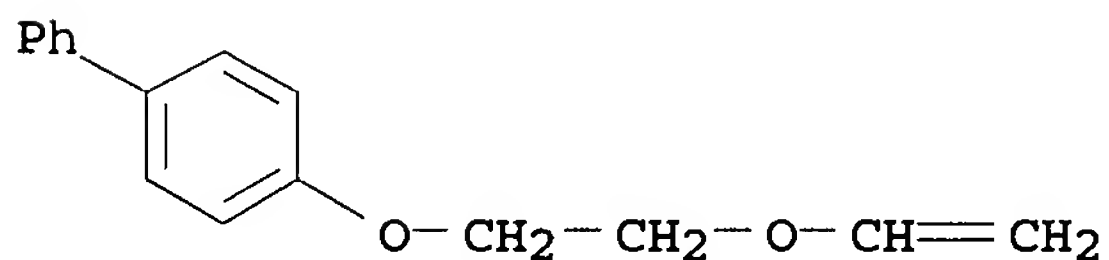
CMF C13 H12 F4 O4



CM 2

CRN 102534-51-0

CMF C16 H16 O2

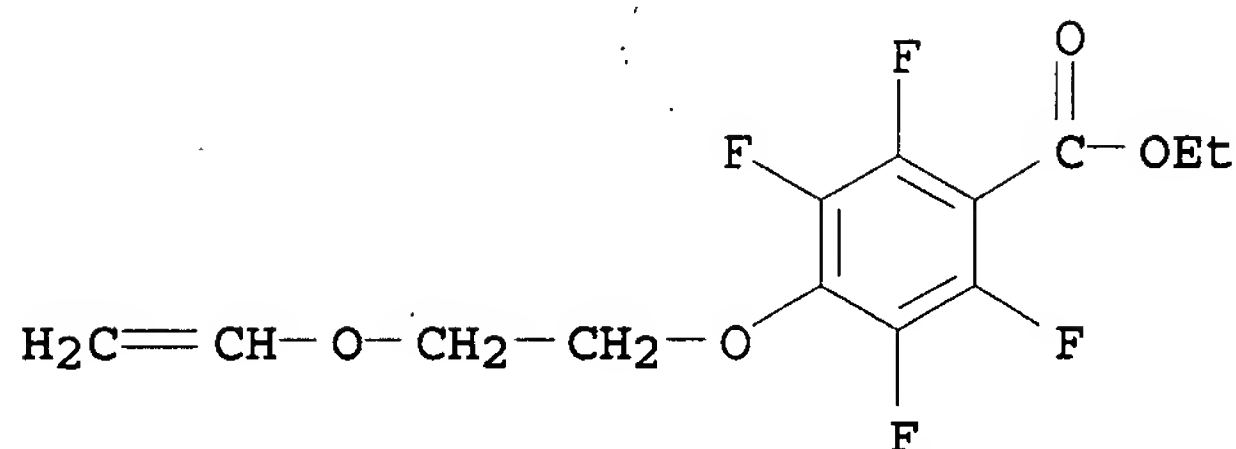


RN 796080-95-0 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, polymer with 1-(ethenyloxy)-2-methylpropane and (2-methoxyethoxy)ethene, triblock (9CI) (CA INDEX NAME)

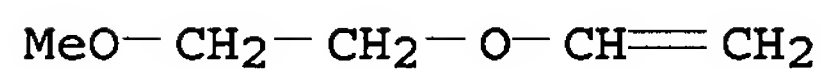
CM 1

CRN 796080-87-0  
CMF C13 H12 F4 O4



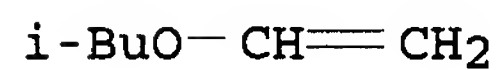
CM 2

CRN 1663-35-0  
CMF C5 H10 O2



CM 3

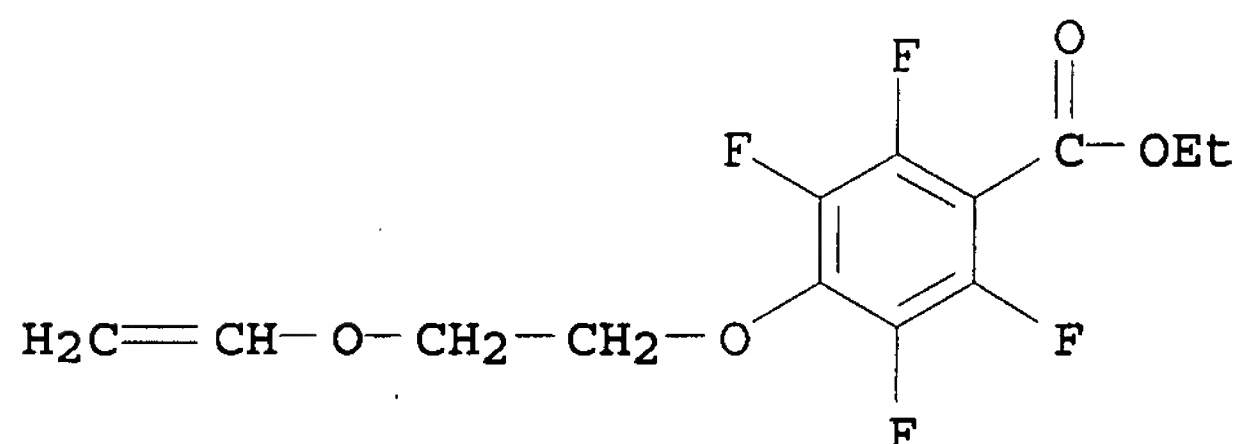
CRN 109-53-5  
CMF C6 H12 O



RN 796080-96-1 HCAPLUS  
CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, polymer with 4-[2-(ethenyloxy)ethoxy]-1,1'-biphenyl and 1-(ethenyloxy)-2-methylpropane, triblock (9CI) (CA INDEX NAME)

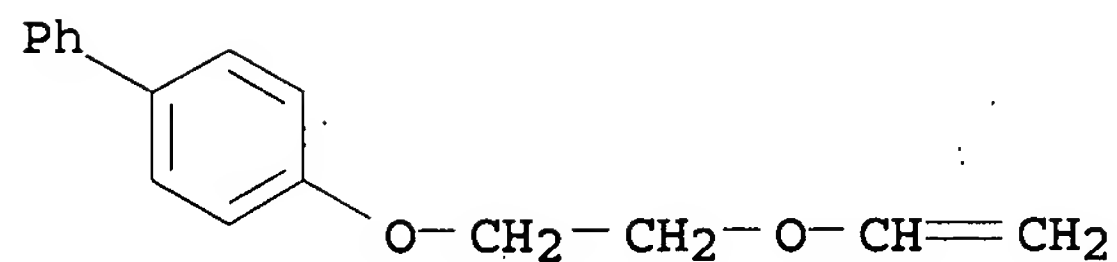
CM 1

CRN 796080-87-0  
CMF C13 H12 F4 O4



CM 2

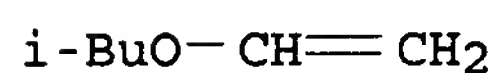
CRN 102534-51-0  
CMF C16 H16 O2



CM 3

CRN 109-53-5

CMF C6 H12 O



IT 796080-92-7P 796080-94-9DP, hydrolyzed reaction products, carboxylic acid derivs.  
(alkenyl ether polymer compound for ink and toner compns.)

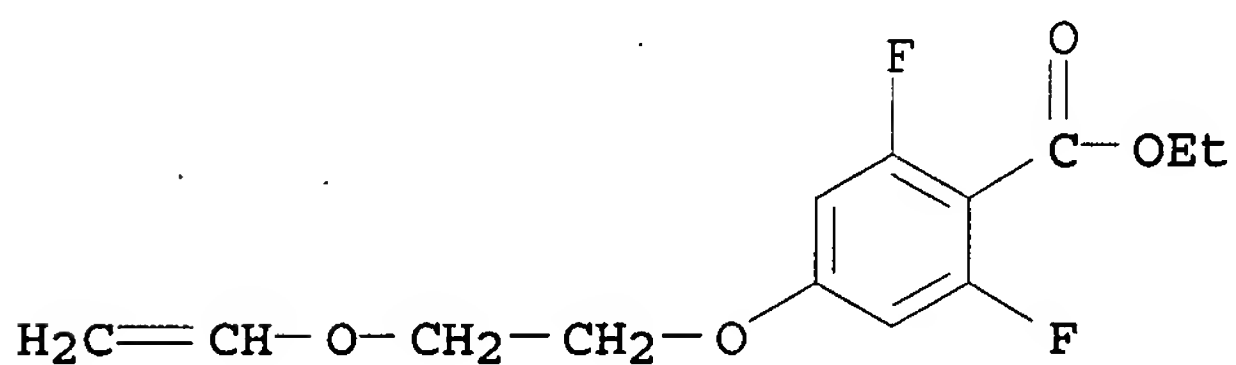
RN 796080-92-7 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,6-difluoro-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 796080-91-6

CMF C13 H14 F2 O4



RN 796080-94-9 HCAPLUS

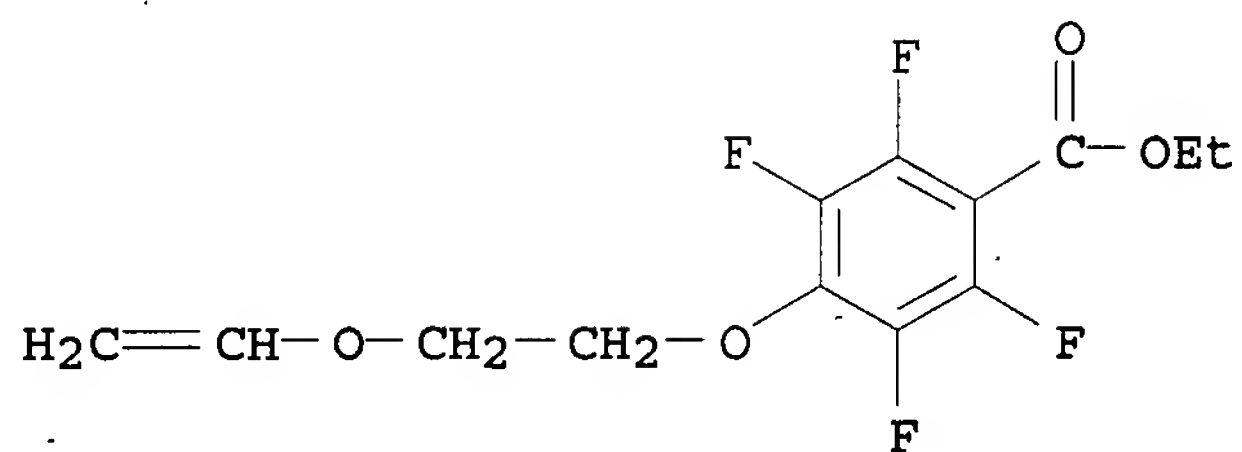
CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester, polymer with 4-[2-(ethenyloxy)ethoxy]-1,1'-biphenyl, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 796080-87-0

CMF C13 H12 F4 O4

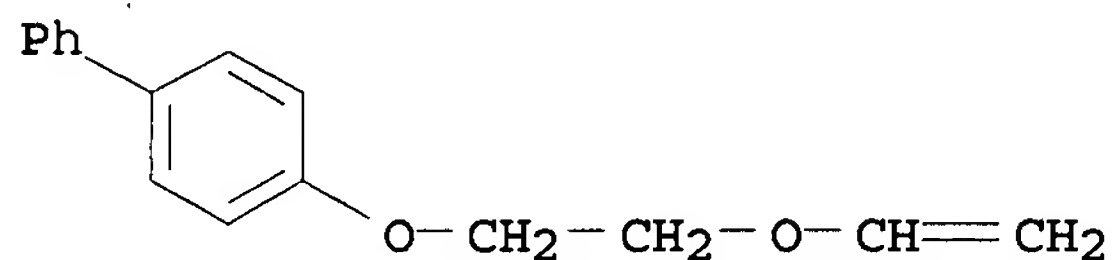




CM 2

CRN 102534-51-0

CMF C16 H16 O2

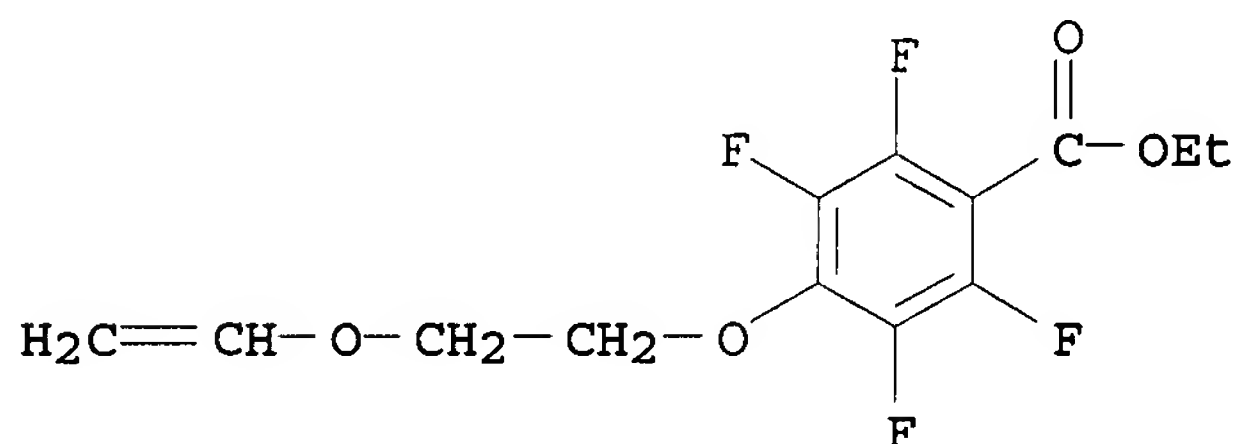


IT 796080-87-0P

(preparation of alkenyl ether polymer compound for ink and toner compns.)

RN 796080-87-0 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester (9CI) (CA INDEX NAME)

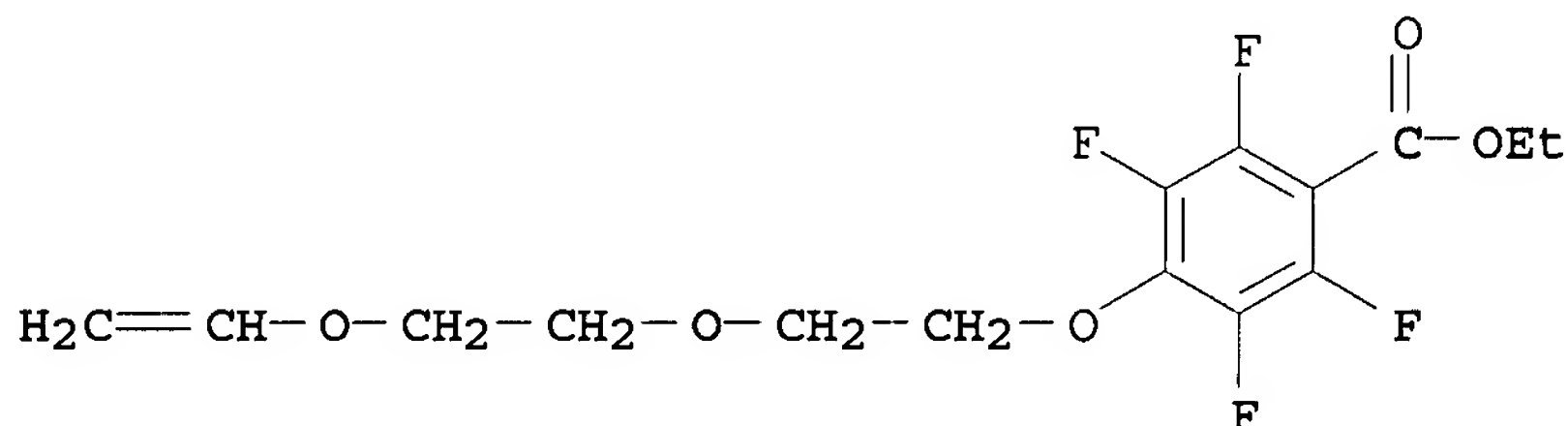


IT 796080-89-2P 796080-91-6P

(preparation of alkenyl ether polymer compound for ink and toner compns.)

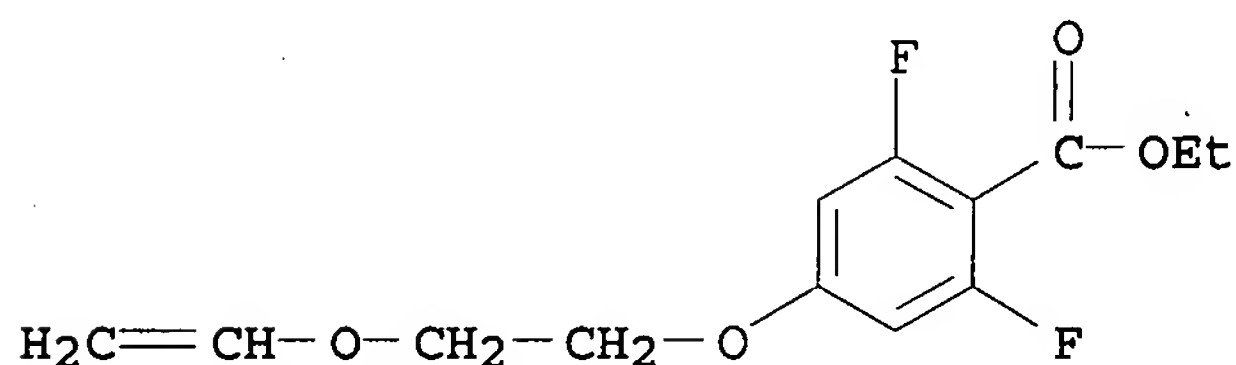
RN 796080-89-2 HCAPLUS

CN Benzoic acid, 4-[2-[2-(ethenyloxy)ethoxy]ethoxy]-2,3,5,6-tetrafluoro-, ethyl ester (9CI) (CA INDEX NAME)



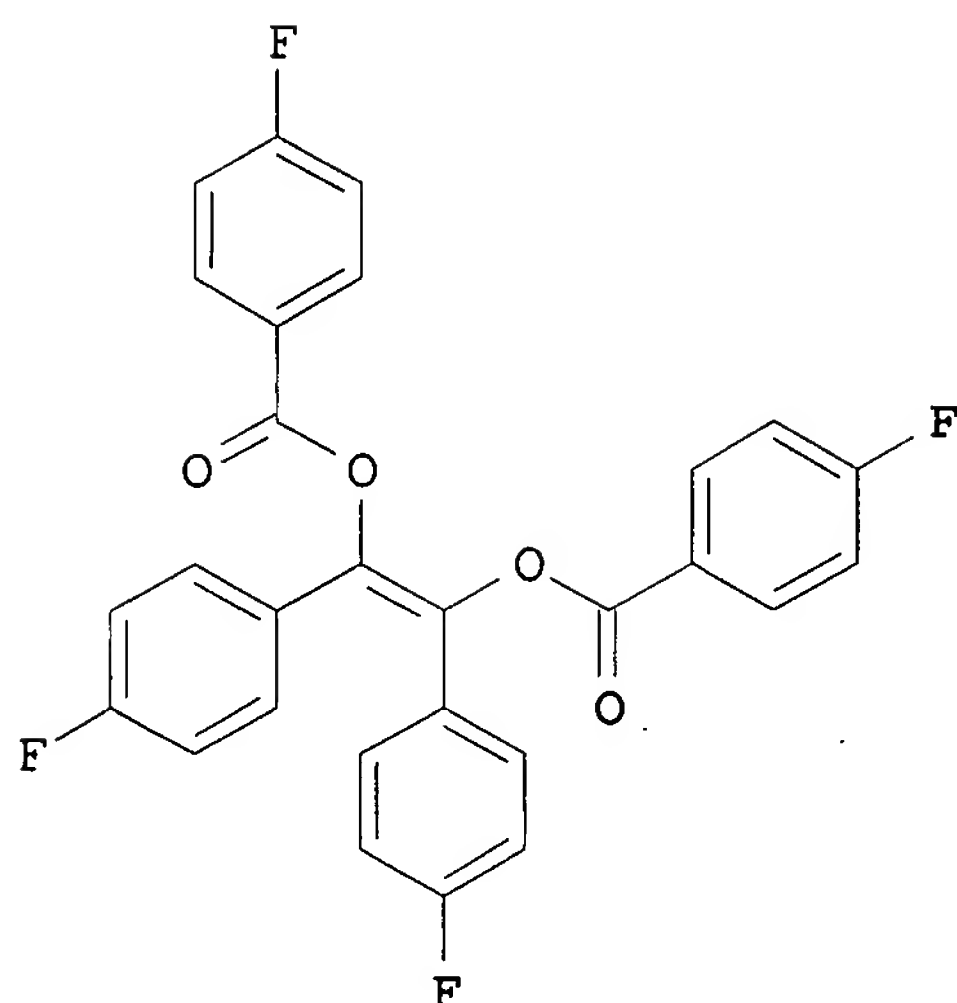
RN 796080-91-6 HCAPLUS

CN Benzoic acid, 4-[2-(ethenyloxy)ethoxy]-2,6-difluoro-, ethyl ester  
(9CI) (CA INDEX NAME)



IC ICM C08F008-00  
ICS C08G065-00; C07C069-00  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 38  
IT 796080-88-1DP, sodium carboxylate reaction products  
796080-88-1P 796080-90-5P 796080-94-9P  
796080-95-0P 796080-96-1DP, hydrolyzed reaction  
products, carboxylic acid derivs.  
(alkenyl ether polymer compound for ink and toner compns.)  
IT 143789-39-3P, Bisphenol A-dodecenylsuccinic acid-diethylene  
glycol-terephthalic acid-trimellitic acid copolymer  
796080-92-7P 796080-94-9DP, hydrolyzed reaction  
products, carboxylic acid derivs. 796080-97-2P  
(alkenyl ether polymer compound for ink and toner compns.)  
IT 796080-87-0P  
(preparation of alkenyl ether polymer compound for ink and toner compns.)  
IT 123270-98-4P 796080-89-2P 796080-91-6P  
(preparation of alkenyl ether polymer compound for ink and toner compns.)  
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L11 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:895271 HCAPLUS  
DOCUMENT NUMBER: 142:55966  
TITLE: Reactions of aroyl chlorides with samarium metal  
in DMF-controllable syntheses of O-aroylebenzoins,  
1,2-diarylethanones, and (Z)- $\alpha,\alpha'$ -  
stilbenediol dibenzoates  
AUTHOR(S): Liu, Yongjun; Wang, Xiaoxia; Zhang, Yongmin  
CORPORATE SOURCE: Department of Chemistry, Zhejiang University,  
Hangzhou, Peop. Rep. China  
SOURCE: Synthetic Communications (2004), 34(21), 4009-4022  
CODEN: SYNCAV; ISSN: 0039-7911  
PUBLISHER: Taylor & Francis, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 142:55966  
ED Entered STN: 27 Oct 2004  
GI



AB Reduction of aroyl chlorides carried out in DMF with samarium metal has been studied. Samarium metal, which required not any intended activation or pretreatment, was found to react with aroyl chloride in a controllable manner. Correspondingly, O-aroylethanoins, 1,2-diarylethanones, or (Z)- $\alpha,\alpha'$ -stilbenediol dibenzoates, e.g., I, were obtained as the major products under controlled conditions.

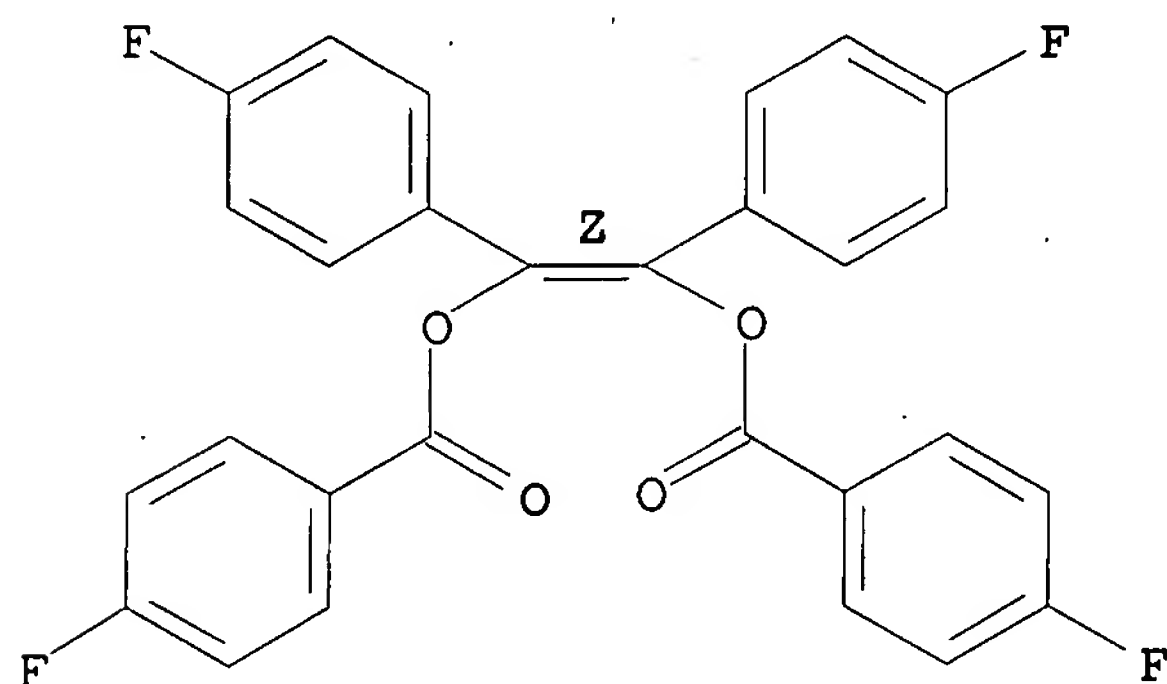
IT 811412-27-8P

(stereoselective preparation of  $\alpha,\alpha'$ -stilbenediol dibenzoates via samarium-promoted stereoselective reductive coupling of aroyl chlorides)

RN 811412-27-8 HCAPLUS

CN Benzoic acid, 4-fluoro-, (1Z)-1,2-bis(4-fluorophenyl)-1,2-ethenediyl ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

IT 1924-28-3P 26142-92-7P 26142-93-8P 26142-94-9P 26142-95-0P  
26142-96-1P 86156-71-0P 811412-27-8P

(stereoselective preparation of  $\alpha,\alpha'$ -stilbenediol dibenzoates via samarium-promoted stereoselective reductive coupling of aroyl chlorides)

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L11 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:894870 HCAPLUS

DOCUMENT NUMBER: 142:56738

TITLE: Highly fluorinated and crosslinkable dendritic  
polymer for photonic applications

AUTHOR(S): Ma, Hong; Luo, Jingdong; Kang, Seok Ho; Wong,  
Sharon; Kang, Jae Wook; Jen, Alex K.-Y.; Barto,  
Rick; Frank, Curtis W.

CORPORATE SOURCE: Department of Materials Science and Engineering,  
University of Washington, Seattle, WA, 98195, USA

SOURCE: Macromolecular Rapid Communications (2004),  
25(19), 1667-1673

CODEN: MRCOE3; ISSN: 1022-1336

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Oct 2004

AB A novel crosslinkable dendritic polymer has been synthesized by the  
thermal polymerization of peripheral aryl trifluorovinyl ether moieties of a  
highly fluorinated dendrimer. The resulting  
perfluorocyclobutane(PFCB)-containing dendritic polymer exhibited  
excellent processability, low optical loss (0.36 dB · cm<sup>-1</sup> at 1  
310 nm with 1% dye doping), high thermal stability, and good solvent  
resistance for waveguide-based photonic applications.

IT 808197-06-0P

(highly fluorinated and crosslinkable dendritic polymer for  
photonic applications)

RN 808197-06-0 HCAPLUS

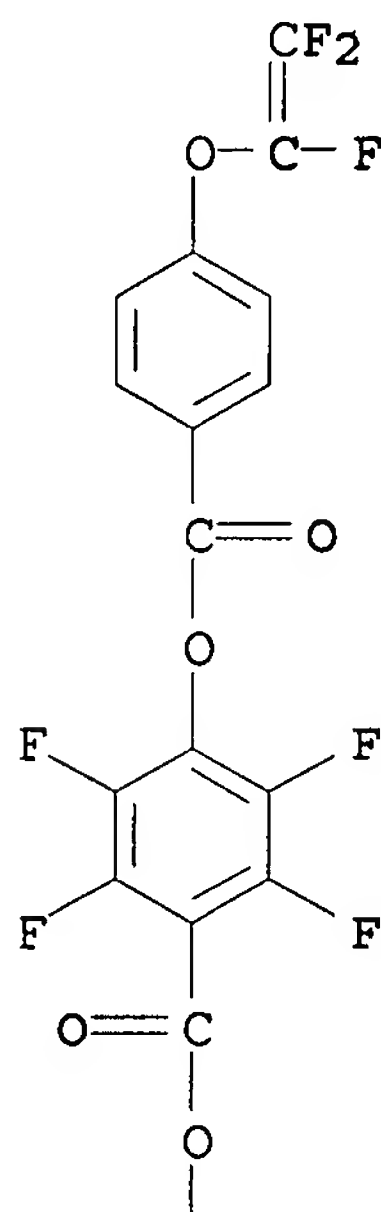
CN Benzoic acid, 3,5-bis[[2,3,5,6-tetrafluoro-4-[[4-  
[(trifluoroethenyl)oxy]benzoyl]oxy]benzoyl]oxy]-, [2,2,2-trifluoro-1-  
(trifluoromethyl)ethylidene]di-4,1-phenylene ester, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

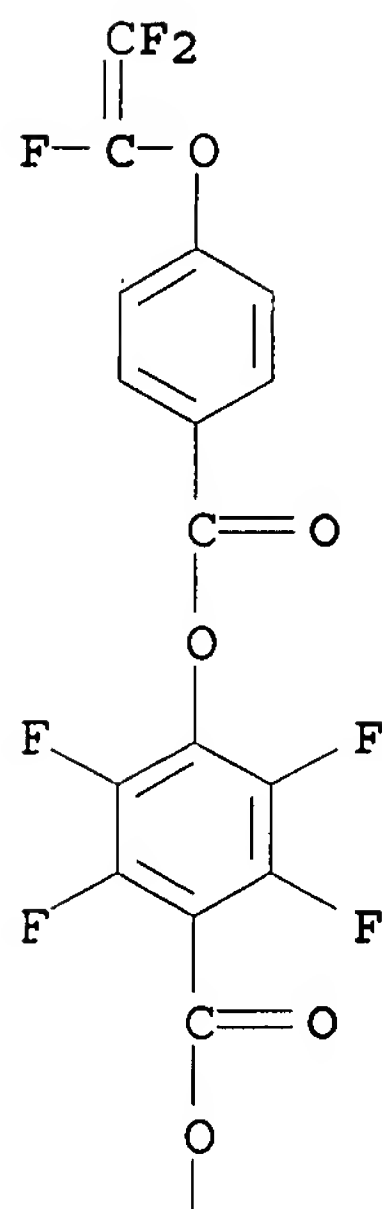
CRN 808197-05-9

CMF C93 H30 F34 O24

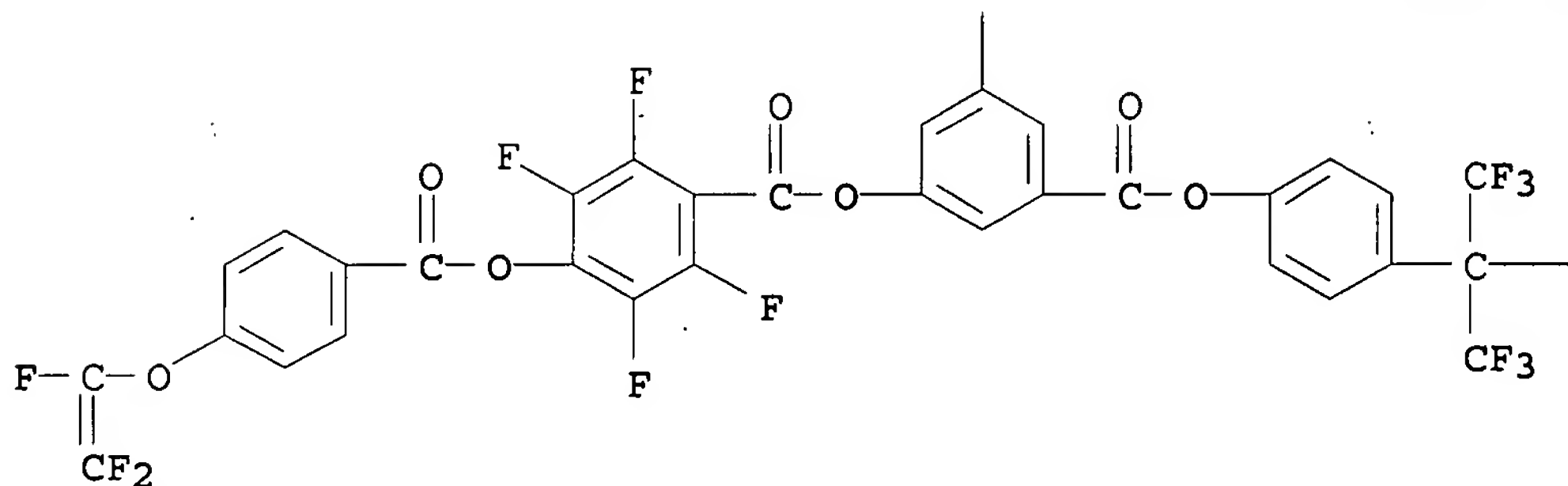
PAGE 1-A



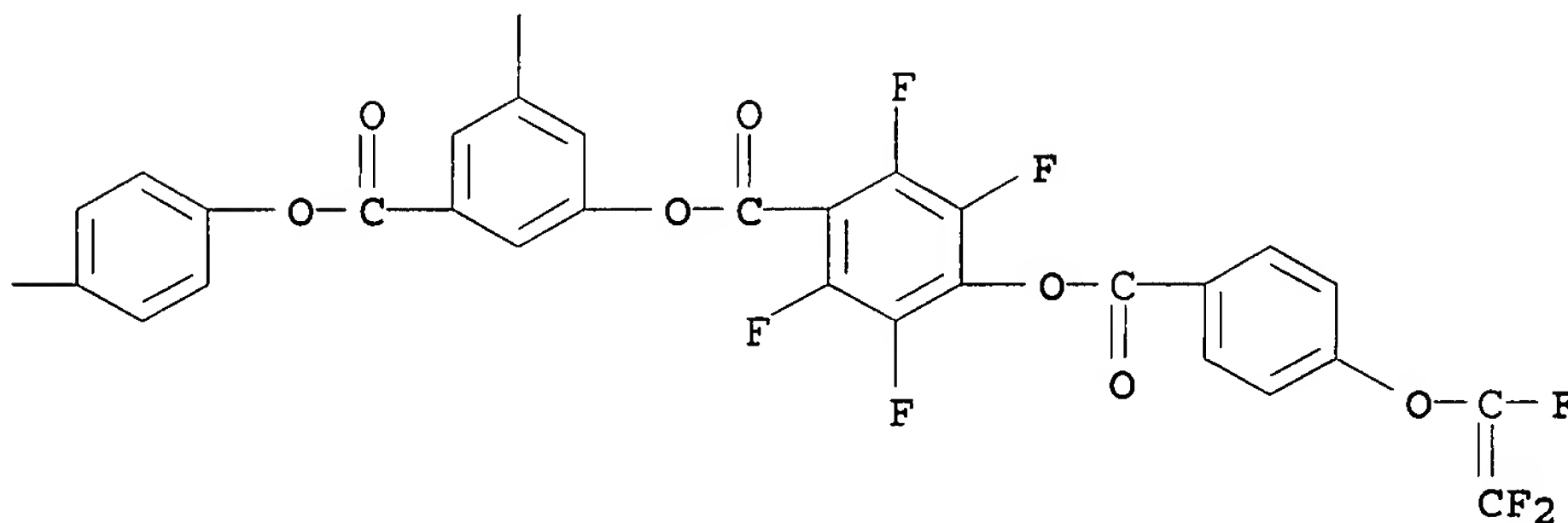
PAGE 1-B



PAGE 2-A



PAGE 2-B



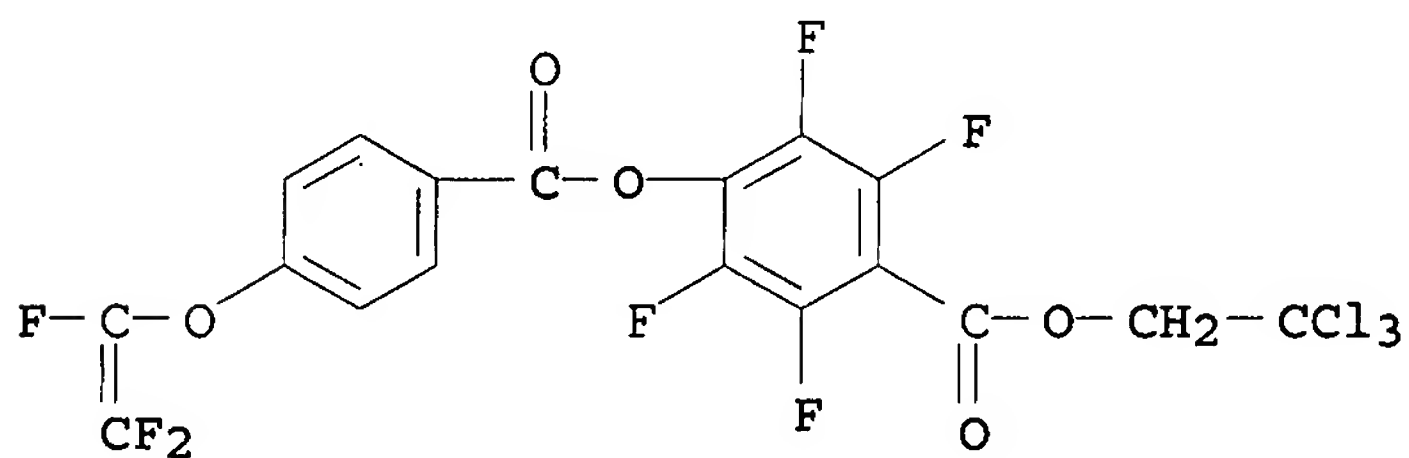
IT 808197-01-5P 808197-02-6P 808197-03-7P

808197-04-8P 808197-05-9P

(highly fluorinated and crosslinkable dendritic polymer for photonic applications)

RN 808197-01-5 HCAPLUS

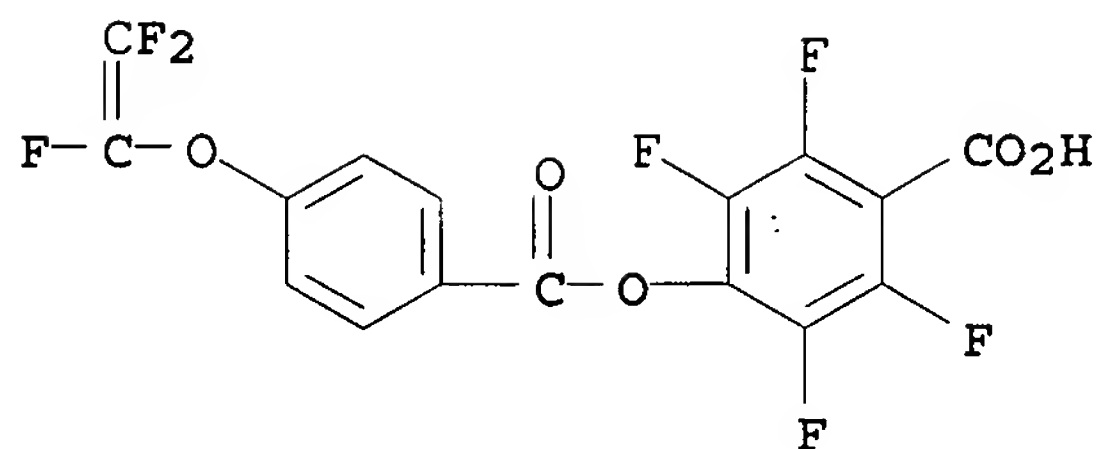
CN Benzoic acid, 2,3,5,6-tetrafluoro-4-[[4-[(trifluoroethenyl)oxy]benzoyl]oxy]-, 2,2,2-trichloroethyl ester (9CI) (CA INDEX NAME)



RN 808197-02-6 HCAPLUS

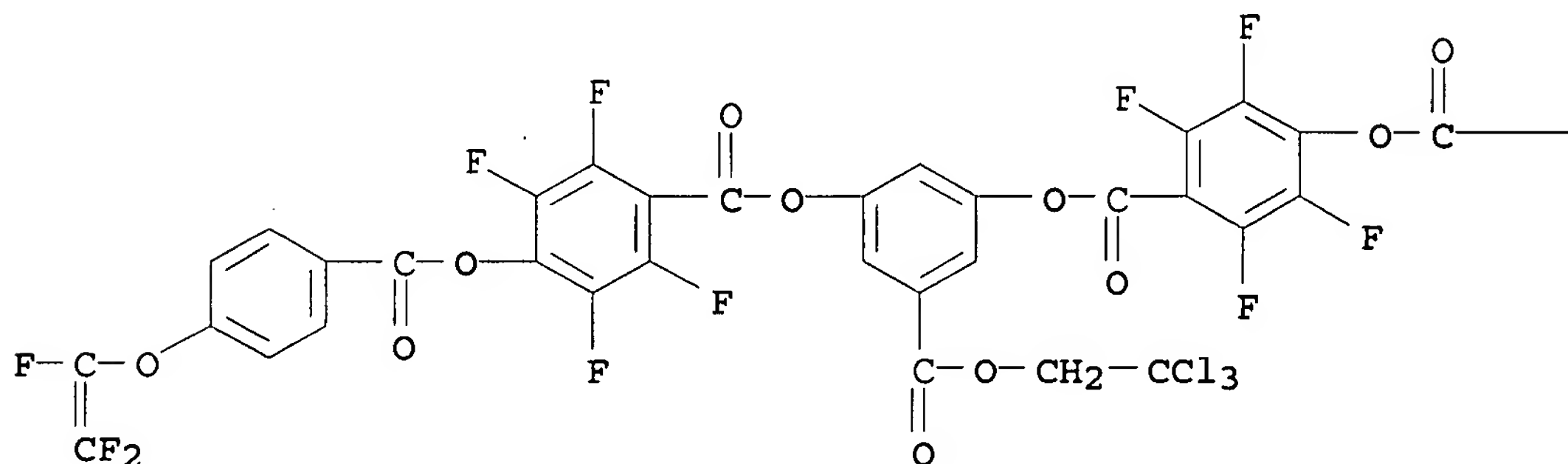
CN Benzoic acid, 2,3,5,6-tetrafluoro-4-[[4-[(trifluoroethenyl)oxy]benzoyl]oxy]- (9CI) (CA INDEX NAME)



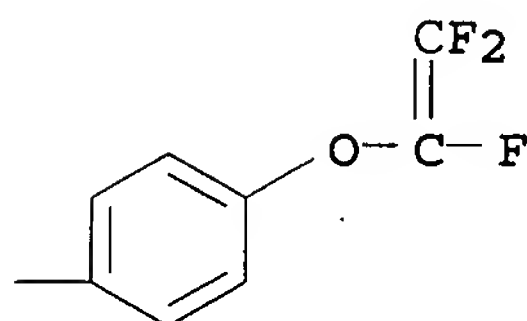


RN 808197-03-7 HCAPLUS  
 CN Benzoic acid, 3,5-bis[[2,3,5,6-tetrafluoro-4-[[4-(trifluoroethenyl)oxy]benzoyl]oxy]benzoyl]oxy]-, 2,2,2-trichloroethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

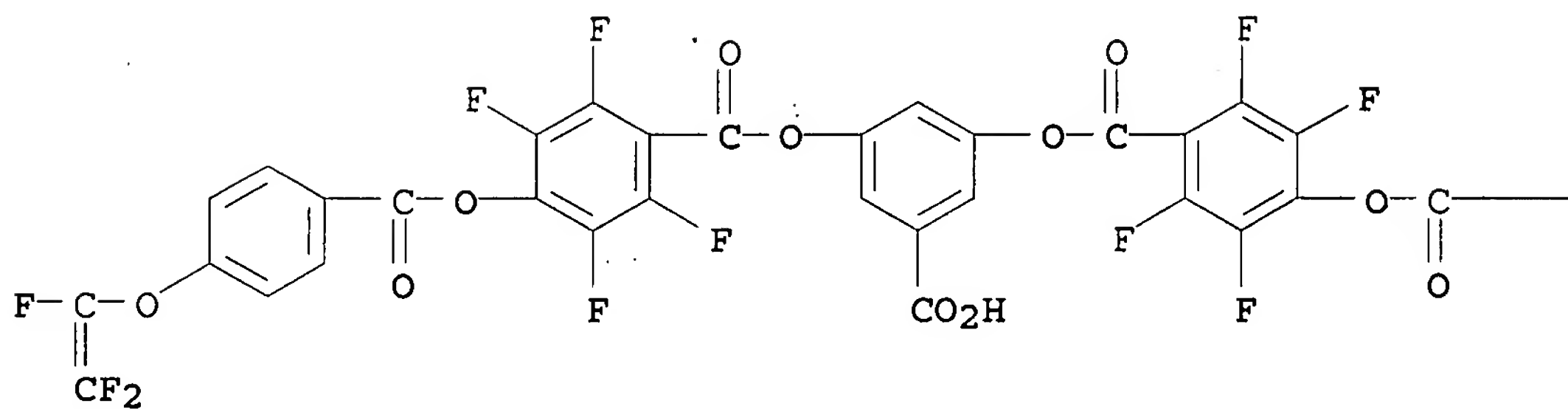


PAGE 1-B

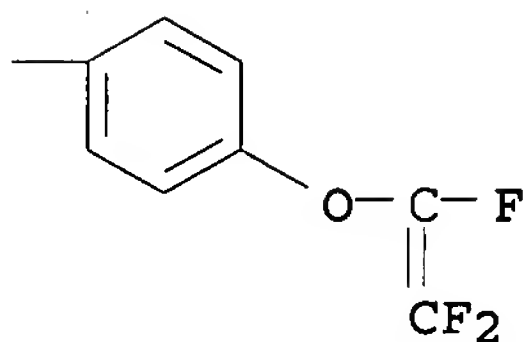


RN 808197-04-8 HCAPLUS  
 CN Benzoic acid, 3,5-bis[[2,3,5,6-tetrafluoro-4-[[4-(trifluoroethenyl)oxy]benzoyl]oxy]benzoyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



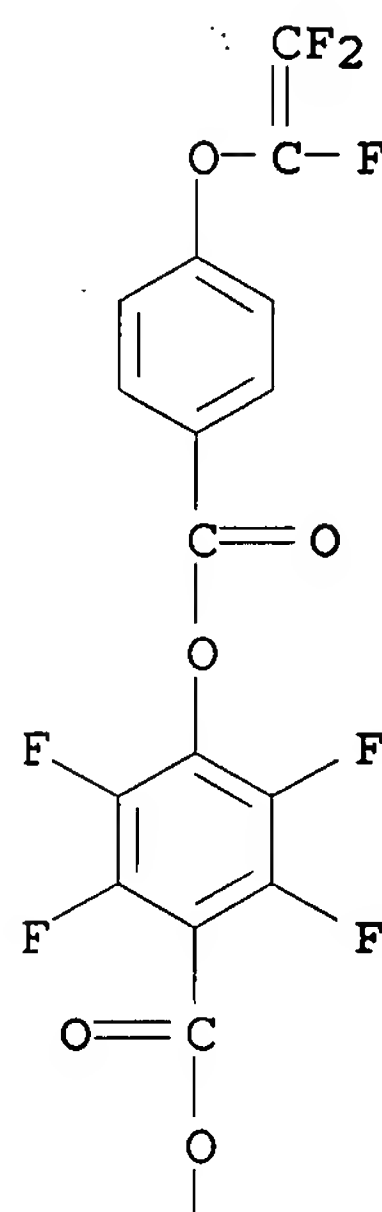
PAGE 1-B



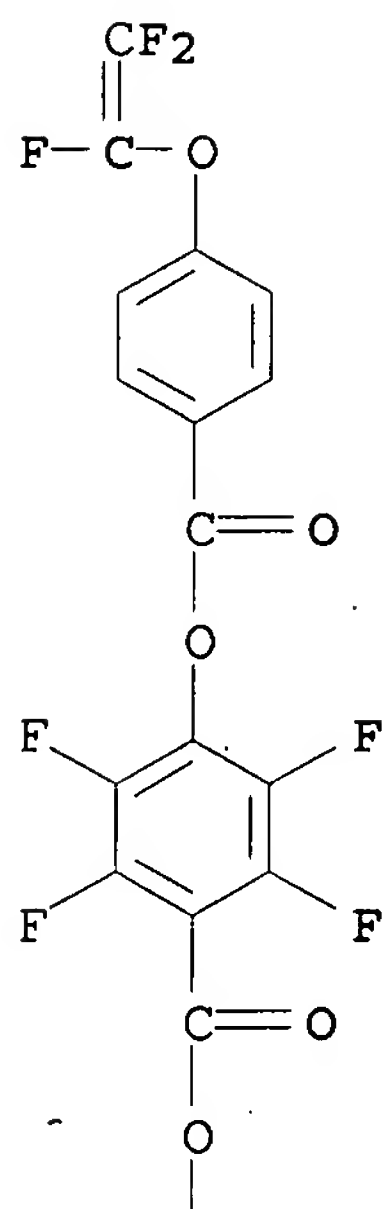
RN 808197-05-9 HCAPLUS

CN Benzoic acid, 3,5-bis[[2,3,5,6-tetrafluoro-4-[[4-  
 [(trifluoroethenyl)oxy]benzoyl]oxy]benzoyl]oxy]-, [2,2,2-trifluoro-1-  
 (trifluoromethyl)ethylidene]di-4,1-phenylene ester (9CI) (CA INDEX  
 NAME)

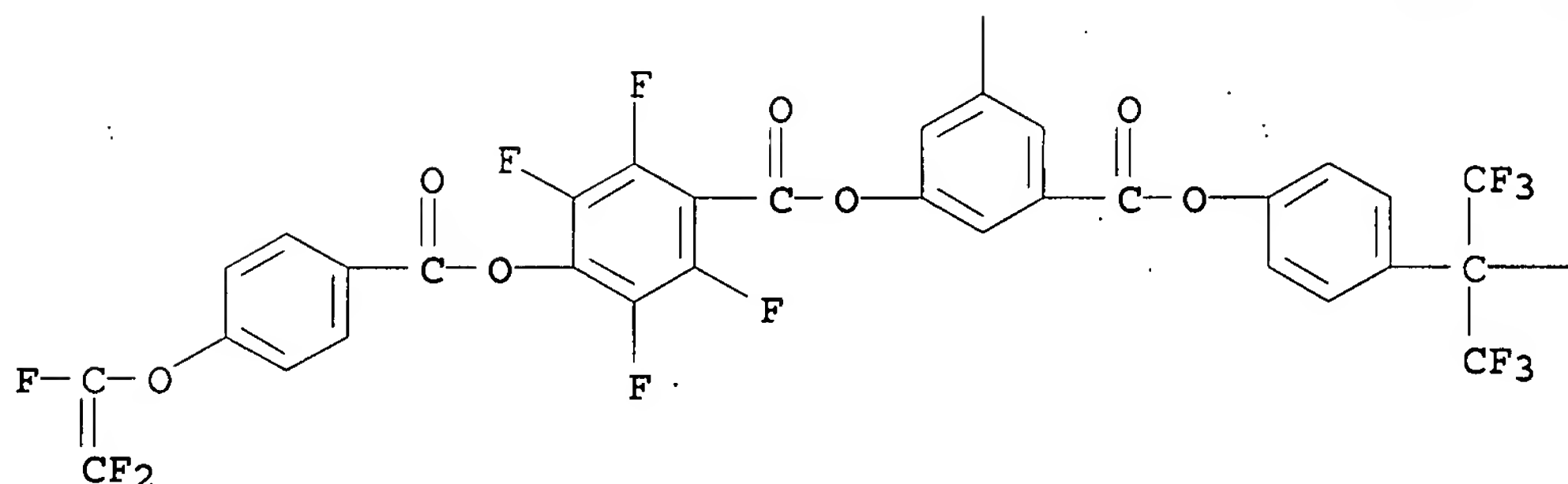
PAGE 1-A



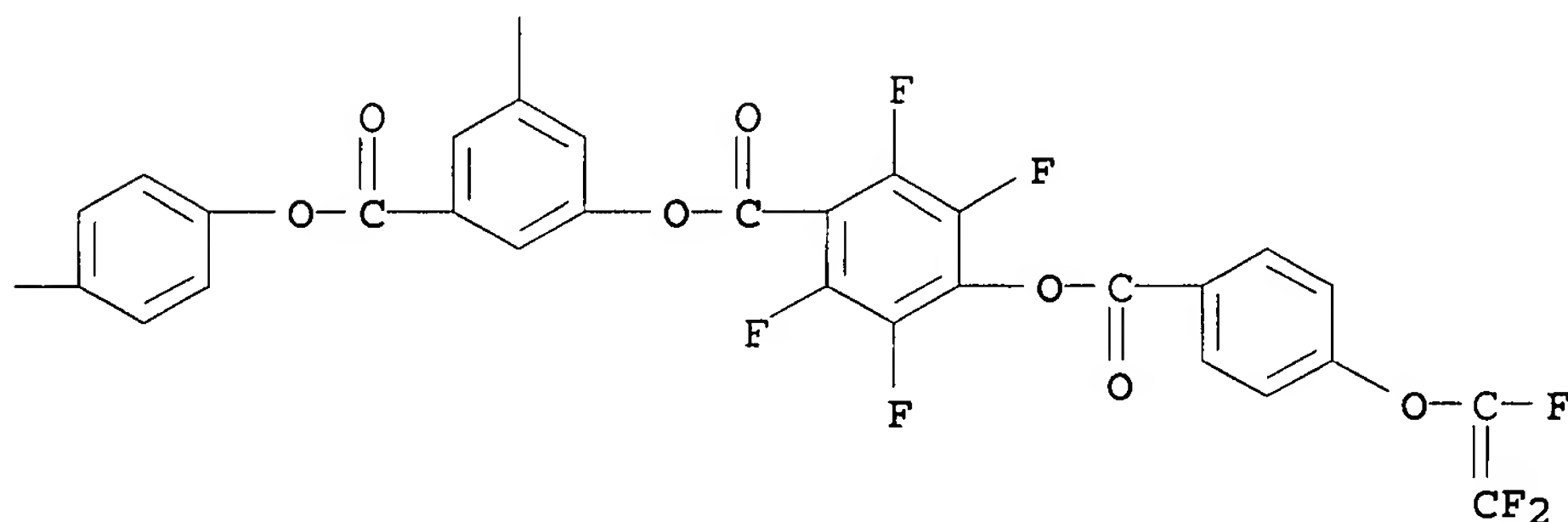
PAGE 1-B



PAGE 2-A



PAGE 2-B



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 73

IT 808197-06-0P

(highly fluorinated and crosslinkable dendritic polymer for photonic applications)

IT 1478-61-1P 134151-66-9P 562070-99-9P 808197-01-5P

808197-02-6P 808197-03-7P 808197-04-8P

808197-05-9P

(highly fluorinated and crosslinkable dendritic polymer for photonic applications)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:592474 HCAPLUS

DOCUMENT NUMBER: 141:256402

TITLE: Identification of 4-Amino-4-deoxychorismate Synthase as the Molecular Target for the Antimicrobial Action of (6S)-6-Fluoroshikimate

AUTHOR(S): Bulloch, Esther M. M.; Jones, Michelle A.; Parker, Emily J.; Osborne, Andrew P.; Stephens, Elaine; Davies, Gareth M.; Coggins, John R.; Abell, Chris

CORPORATE SOURCE: Department of Chemistry, University of Cambridge, University Chemical Laboratory, Cambridge, CB2 1EW, UK

SOURCE: Journal of the American Chemical Society (2004), 126(32), 9912-9913  
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 26 Jul 2004

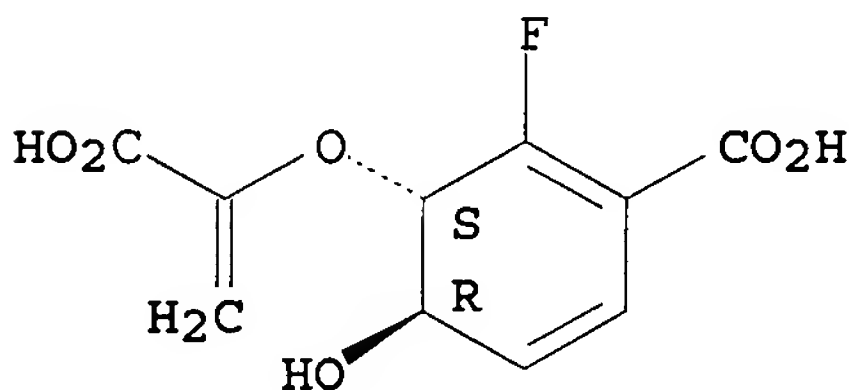
AB (6S)-6-Fluoroshikimate has antimicrobial activity. The mol. basis of this effect had not been identified, but there was speculation that (6S)-6-fluoroshikimate is first converted in vivo into 2-fluorochorismate, which then could inhibit 4-amino-4-deoxychorismate synthase (ADCS). 2-Fluorochorismate was prepared from E-fluorophosphoenolpyruvate and erythrose-4-phosphate by the sequential reactions of DAHP synthase, dehydroquinate synthase, dehydroquinase, shikimate dehydrogenase, EPSP synthase, and chorismate synthase. Inhibition studies on ADCS showed that it was inhibited rapidly and irreversibly by 2-fluorochorismate. Electrospray mass spectrometry of the inactivated enzyme showed an addnl. mass of 198±10 Da. A novel peptide of 1087.6 Da was identified in the HPLC trace for the tryptic digest of 2-fluorochorismate-inactivated ADCS. Sequencing of this peptide by MS/MS showed that the peptide corresponded to residues 272-279 with a modification of 206.1 Da on Lys-274. This observation is particularly exciting in the context of a recent proposal for the catalytic mechanism of ADCS.

IT 170170-99-7, 2-Fluorochorismic acid  
(irreversible inactivation of 4-amino-4-deoxychorismate synthase by 2-fluorochorismate binding a Lys274 residue)

RN 170170-99-7 HCAPLUS

CN 1,5-Cyclohexadiene-1-carboxylic acid, 3-[(1-carboxyethenyl)oxy]-2-fluoro-4-hydroxy-, (3S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 7-3 (Enzymes)

IT 56-87-1, L-Lysine, biological studies 133398-72-8,  
(6S)-6-Fluoroshikimic acid 170170-99-7, 2-Fluorochorismic acid

(irreversible inactivation of 4-amino-4-deoxychorismate synthase by 2-fluorochorismate binding a Lys274 residue)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:153808 HCAPLUS

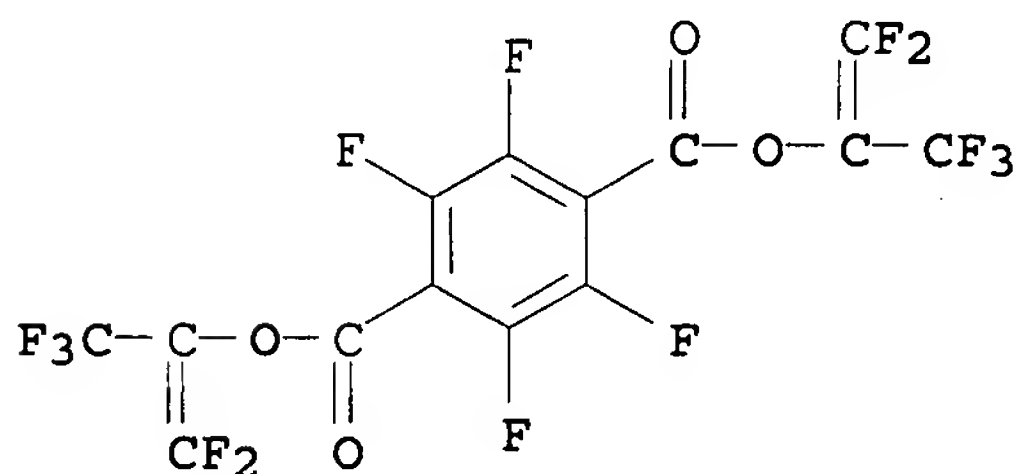
DOCUMENT NUMBER: 141:7490

TITLE: Radical polyaddition reaction of bis(α-trifluoromethyl-β,β-difluorovinyl) 2,3,5,6-tetrafluoroterephthalate

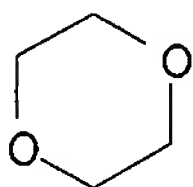
AUTHOR(S): Fujiwara, Hirotada; Narita, Tadashi; Hamana, Hiroshi; Kurata, Ryo

CORPORATE SOURCE: Graduate School of Engineering, Department of Materials Science and Engineering, Saitama Institute of Technology, Okabe, Saitama, 369-0293,

SOURCE: Japan  
 Journal of Fluorine Chemistry (2004), 125(3),  
 381-389  
 CODEN: JFLCAR; ISSN: 0022-1139  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 26 Feb 2004  
 AB To develop the radical polyaddn. of bisperfluoroisopropenyl esters to  
 preparation of polymers bearing higher fluorine content, the polyaddn.  
 reactivity of bis( $\alpha$ -trifluoromethyl- $\beta,\beta$ -difluorovinyl)  
 2,3,5,6-tetrafluoroterephthalate [ $\text{CF}_2\text{:C}(\text{CF}_3)\text{OCOC}_6\text{F}_4\text{COOC}(\text{CF}_3)\text{:CF}_2$ ]  
 (TFT) with 1,4-dioxane (DOX) and diethoxydimethylsilane (DEOMS) were  
 described. The results of the model reactions of 2-  
 pentafluorobenzoxypentafluoropropene [ $\text{CF}_2\text{:C}(\text{CF}_3)\text{OCOC}_6\text{F}_5$ ] (PFBP) with  
 THF, DOX and DEOMS showed that the reactions took place almost quant.  
 and the main products were mono-addition compound for THF and di-addition  
 compds. for DOX and DEOMS, resp. The polyaddn. of TFT with DOX or  
 DEOMS yielded corresponding polymers of about  $1 \times 10^4$  as a mol.  
 weight bearing unimodal mol. weight distribution by the initiation of  
 peroxides such as benzoyl peroxide and di-tert-Bu peroxide. TFT  
 showed the slightly higher reactivity compared to that of  
 non-fluorinated analog, bis( $\alpha$ -trifluoromethyl- $\beta,\beta$ -  
 difluorovinyl) terephthalate (BFP), by the results of ternary  
 polyaddn. of TFT/BFP/DOX system. Polymers bearing TFT moiety showed  
 the higher thermostability and contact angle.  
 IT 696646-89-6P  
 (radical polyaddn. of bis( $\alpha$ -trifluoromethyl- $\beta,\beta$ -  
 difluorovinyl) 2,3,5,6-tetrafluoroterephthalate and copolymer  
 properties)  
 RN 696646-89-6 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrafluoro-,  
 bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester, polymer with  
 1,4-dioxane (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 625846-37-9  
 CMF C14 F14 O4



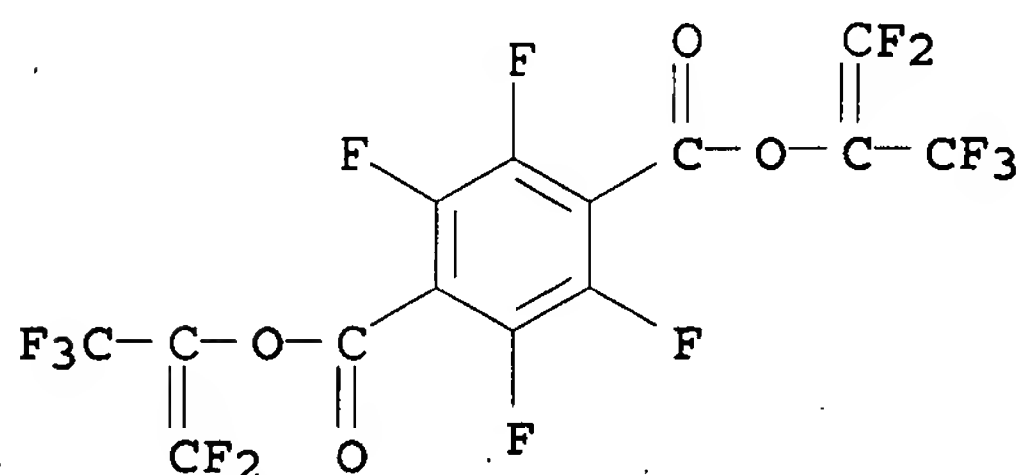
CM 2  
 CRN 123-91-1  
 CMF C4 H8 O2



IT 625846-37-9 696646-95-4 696647-01-5  
(radical polyaddn. of bis( $\alpha$ -trifluoromethyl- $\beta,\beta$ -difluorovinyl) 2,3,5,6-tetrafluoroterephthalate and copolymer properties)

RN 625846-37-9 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrafluoro-, bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester (9CI) (CA INDEX NAME)



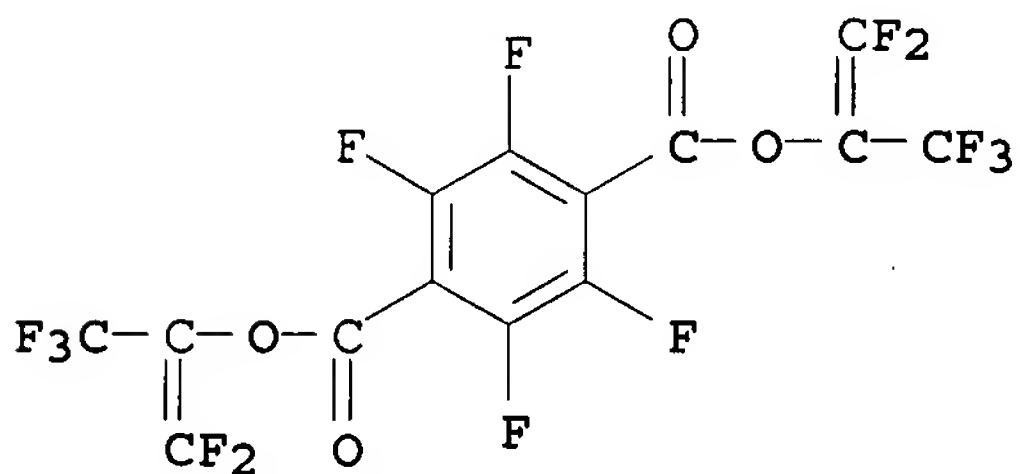
RN 696646-95-4 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrafluoro-, bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester, polymer with diethoxydimethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 625846-37-9

CMF C14 F14 O4

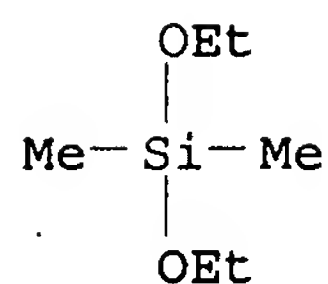


CM 2

CRN 78-62-6

CMF C6 H16 O2 Si





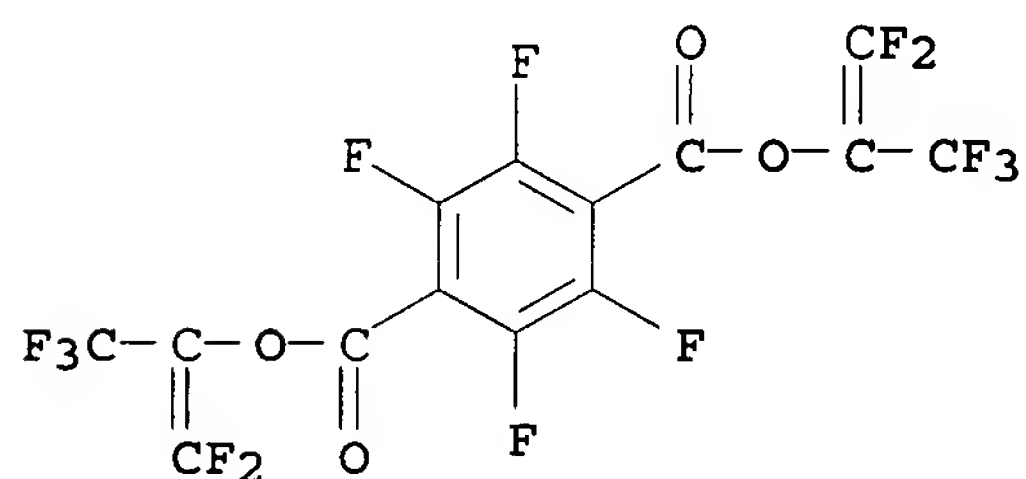
RN 696647-01-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrafluoro-,  
bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester, polymer with  
diethoxydimethylsilane and 1,4-dioxane (9CI) (CA INDEX NAME)

CM 1

CRN 625846-37-9

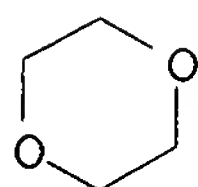
CMF C14 F14 O4



CM 2

CRN 123-91-1

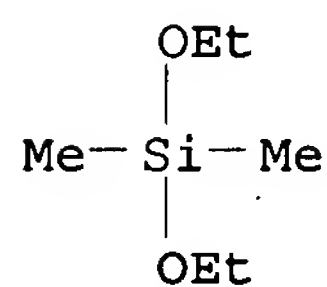
CMF C4 H8 O2



CM 3

CRN 78-62-6

CMF C6 H16 O2 Si



CC 35-4 (Chemistry of Synthetic High Polymers)

IT 696646-89-6P

(radical polyaddn. of bis(α-trifluoromethyl-β,β-

difluorovinyl) 2,3,5,6-tetrafluoroterephthalate and copolymer properties)

IT 78-62-6 123-91-1, 1,4-Dioxane, reactions 625846-37-9  
696646-95-4 696647-01-5

(radical polyaddn. of bis( $\alpha$ -trifluoromethyl- $\beta,\beta$ -difluorovinyl) 2,3,5,6-tetrafluoroterephthalate and copolymer properties)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:945433 HCAPLUS

DOCUMENT NUMBER: 139:395700

TITLE: Preparation of bis(1,1,3,3,3-pentafluoropropen-2-yl) tetrafluorophthalate

INVENTOR(S): Narita, Tadashi; Kumaki, Terutoshi; Sasaki, Nobutoshi; Morikawa, Kohei

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003342241	A	20031203	JP 2002-153540	20020528
PRIORITY APPLN. INFO.:			JP 2002-153540	20020528

OTHER SOURCE(S): MARPAT 139:395700

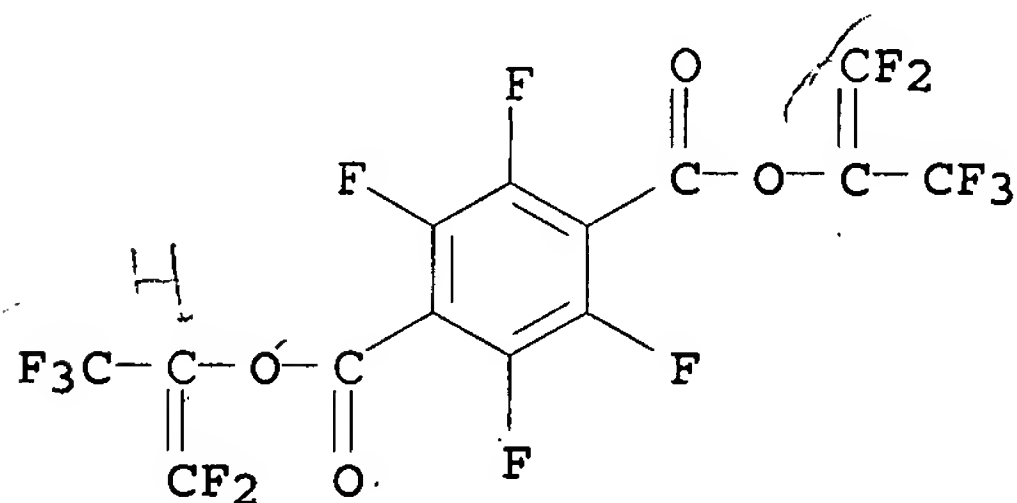
ED Entered STN: 04 Dec 2003

AB Title compound (I) is prepared I may be useful as a material or modifier for low-refractive index optical polymers, etc. Thus, 1,1,1,3,3,3-hexafluoropropan-2-ol was treated with n-BuLi/hexane at 0° for 1 h and esterified with tetrafluoroterephthaloyl chloride to give 76.8% 4-I.

IT 625846-37-9P 625846-38-0P  
(preparation of perfluorinated bis(propenyl) phthalate for optical materials)

RN 625846-37-9 HCAPLUS

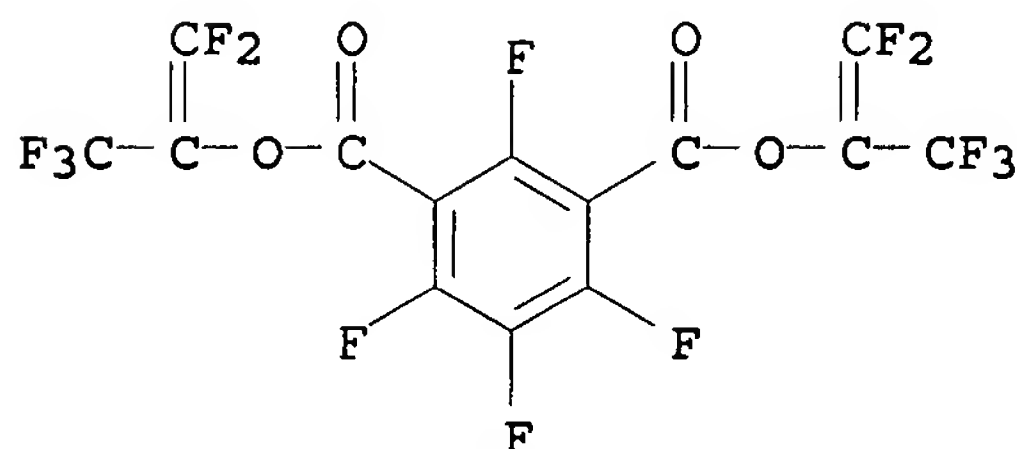
CN 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrafluoro-, bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester (9CI) (CA INDEX NAME)



RN 625846-38-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 2,4,5,6-tetrafluoro-,

bis[2,2-difluoro-1-(trifluoromethyl)ethenyl] ester (9CI) (CA INDEX NAME)

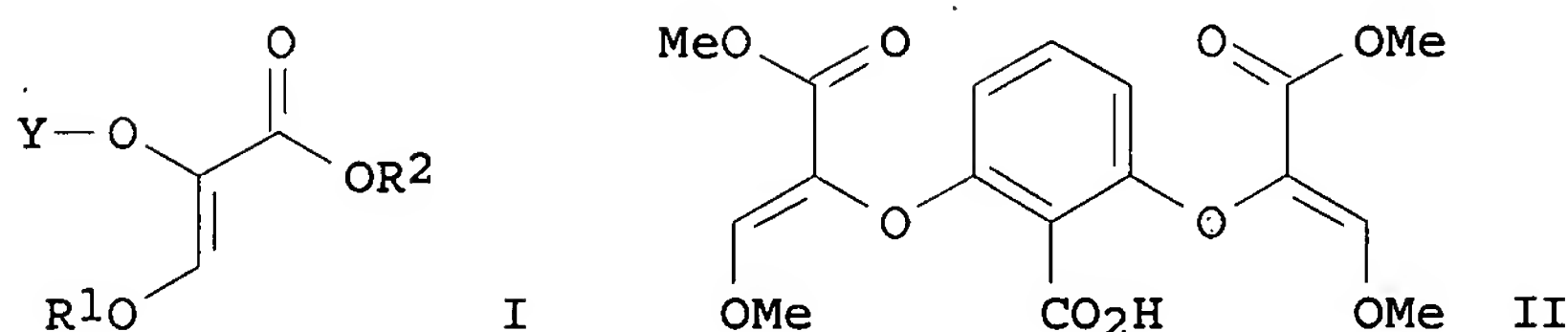


IC ICM C07C069-83  
ICS C08F018-20  
CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 73  
IT 625846-37-9P 625846-38-0P  
(preparation of perfluorinated bis(propenyl) phthalate for optical materials)

L11 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:489350 HCAPLUS  
DOCUMENT NUMBER: 135:76690  
TITLE: Preparation of novel herbicidal aryl vinyl ethers  
INVENTOR(S): Cramp, Michael Colin; Gingell, Michael; Mack, Stephen Robert  
PATENT ASSIGNEE(S): Aventis CropScience SA, Fr.  
SOURCE: PCT Int. Appl., 36 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047863	A2	20010705	WO 2000-EP13386	20001220
WO 2001047863	A3	20020502		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001029239	A1	20011011	US 2000-741707	20001220
PRIORITY APPLN. INFO.:			GB 1999-30703	A 19991224

OTHER SOURCE(S): MARPAT 135:76690  
ED Entered STN: 06 Jul 2001  
GI



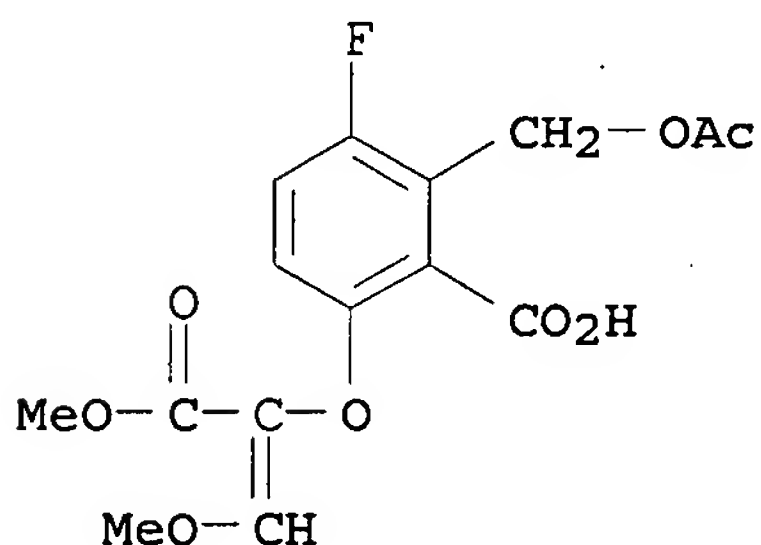
AB The title compds. [I; R1, R2 = H, alkyl, alkenyl, etc.; Y = (un)substituted 2-carboxyphenyl or its ester], useful in controlling weeds, were prepared. Thus, treating tert-Bu 2,6-bis(2-methoxy-1-methoxycarbonylvinyl)benzoate with F3CCO2H in CH2Cl2 afforded the benzoic acid II. Herbicidal activity of compds. I was tested on weeds such as *Amaranthus retroflexus*, *Setaria viridis*, etc. (data given).

IT 347877-96-7P 347877-97-8P 347877-99-0P  
347878-08-4P

(preparation of novel herbicidal aryl vinyl ethers)

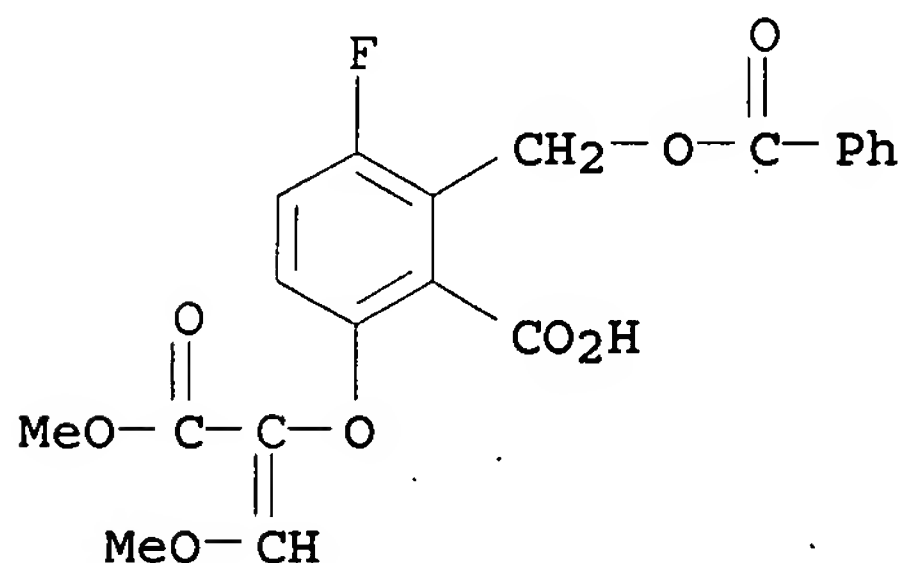
RN 347877-96-7 HCAPLUS

CN Benzoic acid, 2-[(acetyloxy)methyl]-3-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy] - (9CI) (CA INDEX NAME)



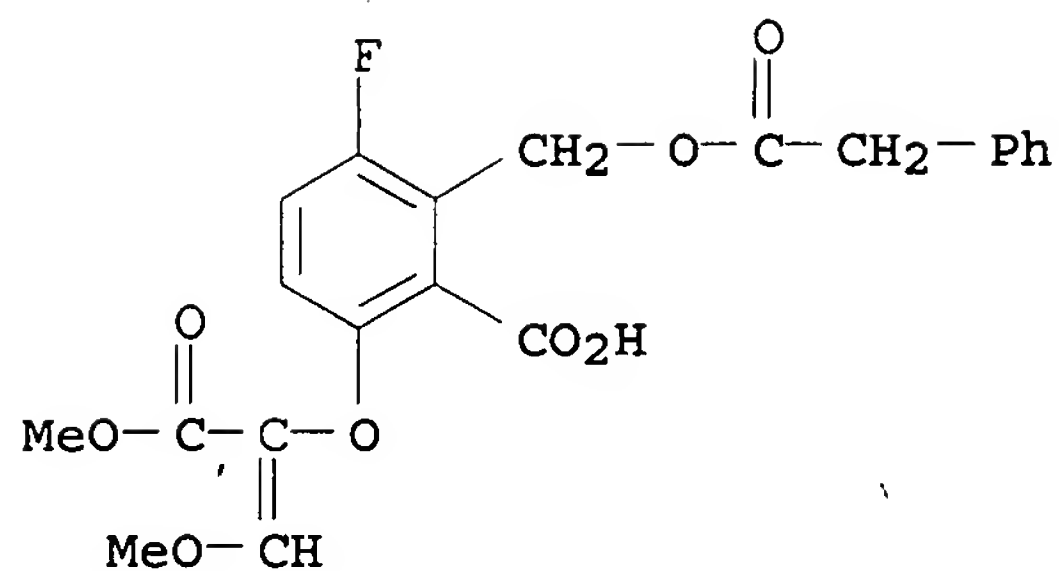
RN 347877-97-8 HCAPLUS

CN Benzoic acid, 2-[(benzoyloxy)methyl]-3-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy] - (9CI) (CA INDEX NAME)



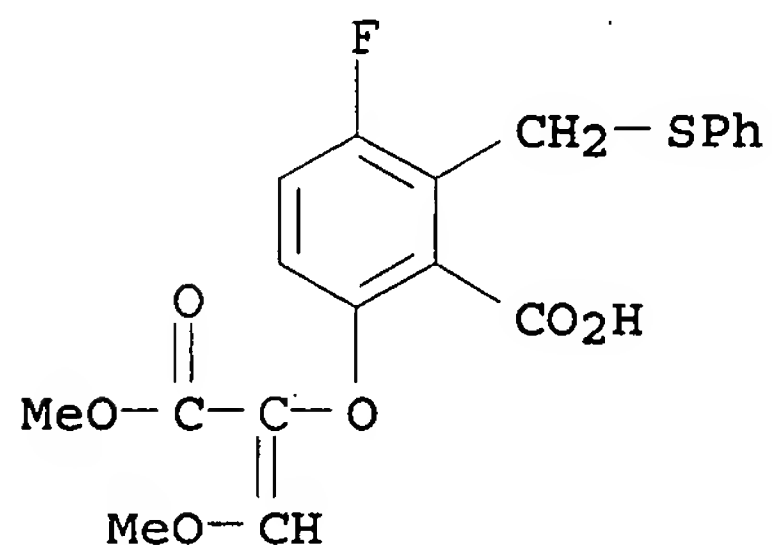
RN 347877-99-0 HCAPLUS

CN Benzeneacetic acid, [2-carboxy-6-fluoro-3-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 347878-08-4 HCAPLUS

CN Benzoic acid, 3-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-2-[(phenylthio)methyl]- (9CI) (CA INDEX NAME)

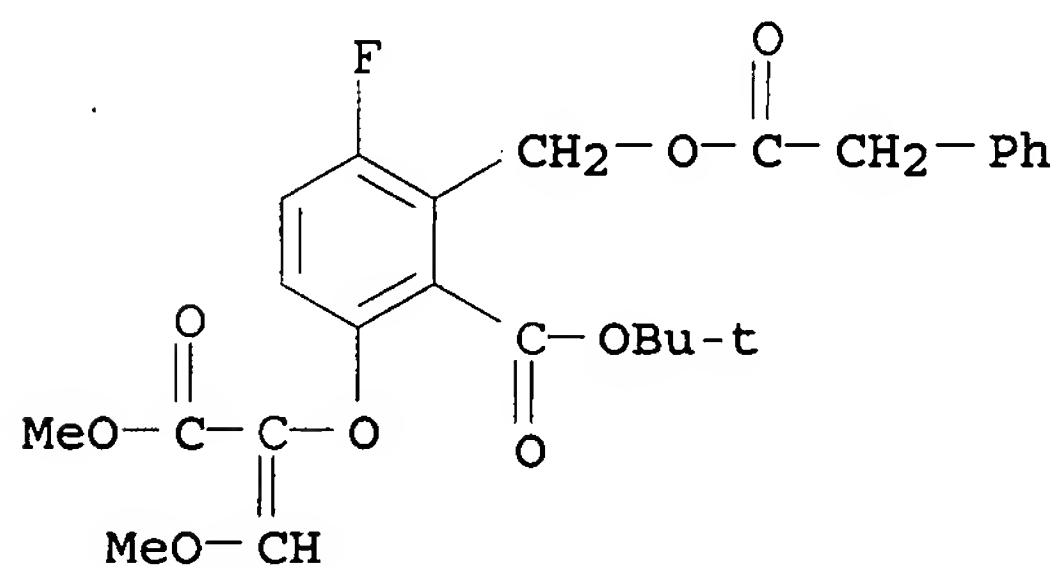


IT 347878-27-7P 347878-28-8P

(preparation of novel herbicidal aryl vinyl ethers)

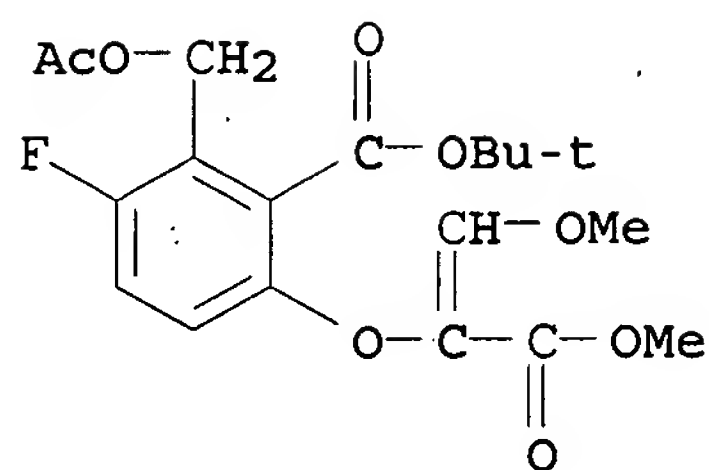
RN 347878-27-7 HCAPLUS

CN Benzeneacetic acid, [2-[(1,1-dimethylethoxy)carbonyl]-6-fluoro-3-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 347878-28-8 HCAPLUS

CN Benzoic acid, 2-[(acetyloxy)methyl]-3-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IC ICM C07C069-92  
ICS C07D239-60; C07C323-56; C07C317-46; A01N037-10; A01N043-54;  
A01N041-10

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 5

IT 255906-75-3P 255906-82-2P 347877-95-6P 347877-96-7P  
347877-97-8P 347877-98-9P 347877-99-0P  
347878-00-6P 347878-01-7P 347878-02-8P 347878-03-9P  
347878-04-0P 347878-05-1P 347878-06-2P 347878-07-3P  
347878-08-4P 347878-09-5P 347878-10-8P 347878-11-9P  
347878-12-0P 347878-13-1P 347878-14-2P 347878-15-3P  
347878-16-4P 347878-17-5P 347878-18-6P 347878-19-7P  
347878-20-0P 347878-21-1P 347878-22-2P

(preparation of novel herbicidal aryl vinyl ethers)

IT 84434-14-0P 136323-05-2P 197718-32-4P 347878-23-3P  
347878-24-4P 347878-25-5P 347878-26-6P 347878-27-7P  
347878-28-8P 347878-29-9P 347878-30-2P 347878-31-3P  
347878-32-4P 347878-33-5P 347878-34-6P 347878-35-7P

(preparation of novel herbicidal aryl vinyl ethers)

L11 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:78212 HCAPLUS

DOCUMENT NUMBER: 134:131315

TITLE: Carboxylic acid amides, medicaments containing  
these compounds and the use and production thereof  
INVENTOR(S): Hauel, Norbert; Priepke, Henning; Damm, Klaus;  
Schnapp, Andreas

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany

SOURCE: PCT Int. Appl., 170 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

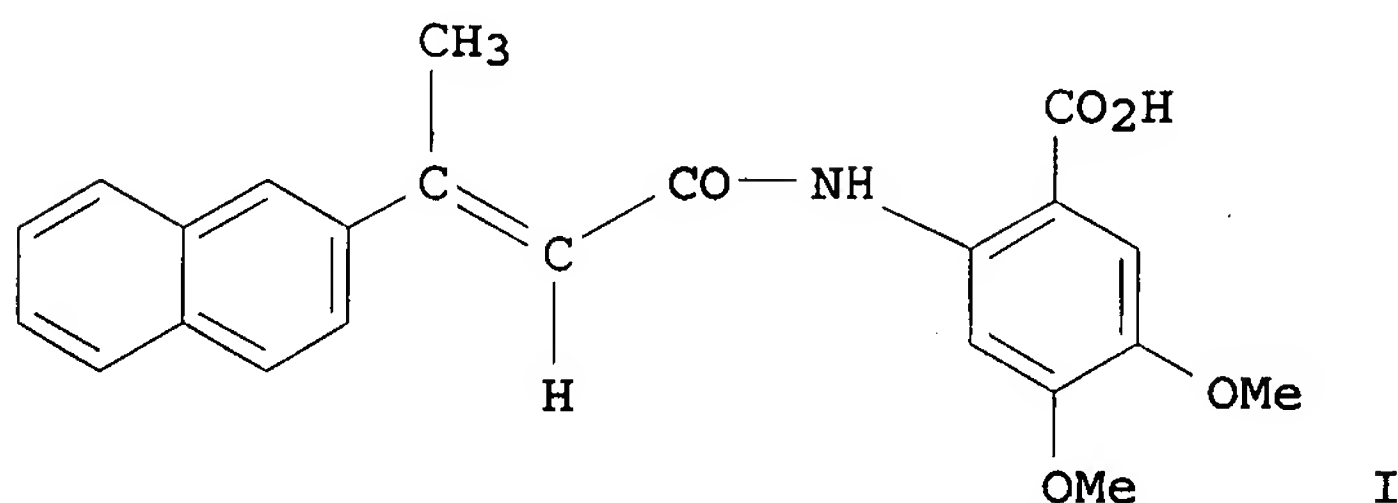
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007020	A2	20010201	WO 2000-EP7057	20000722
WO 2001007020	A3	20020919		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
DE 19935219	A1	20010201	DE 1999-19935219	19990727

US 6362210	B1	20020326	US 2000-618702	20000718
CA 2378382	A1	20010201	CA 2000-2378382	20000722
TR 200200226	T2	20020923	TR 2002-226	20000722
EP 1261321	A2	20021204	EP 2000-951431	20000722
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
HU 200204373	A2	20030328	HU 2002-4373	20000722
EE 200200041	A	20030415	EE 2002-41	20000722
JP 2003518475	T	20030610	JP 2001-511906	20000722
BR 2000013184	A	20030701	BR 2000-13184	20000722
US 2002099089	A1	20020725	US 2002-37555	20020103
US 6727250	B2	20040427		
BG 106343	A	20020830	BG 2002-106343	20020123
MX 2002PA00822	A	20021023	MX 2002-PA822	20020123
NO 2002000374	A	20020124	NO 2002-374	20020124
ZA 2002000694	A	20030801	ZA 2002-694	20020125
IN 2002MN00044	A	20050318	IN 2002-MN44	20020714
PRIORITY APPLN. INFO.:			DE 1999-19935219	A 19990727
			US 2000-618702	A3 20000718
			WO 2000-EP7057	W 20000722

OTHER SOURCE(S): MARPAT 134:131315  
 ED Entered STN: 02 Feb 2001  
 GI



AB The invention relates to the use of carboxylic acid amides of general formula A(R) (R3)CC(R1) (R4)C(O)N(R2)B (see original for definitions) for inhibiting telomerase, methods for the production thereof, to medicaments containing these compds. and to the use and production thereof. Title compds. were prepared by, e.g., treating Me anthranilate with (E)-3-nitrocinnamic acid and deesterification of the resulting product. Thus (I) was prepared by hydrolysis of its Me ester with NaOH, in 33% yield. In in vitro telomerase inhibition tests using HeLa cell nuclear exts., I had IC50 of 0.035  $\mu$ M.

IT 321676-00-0P

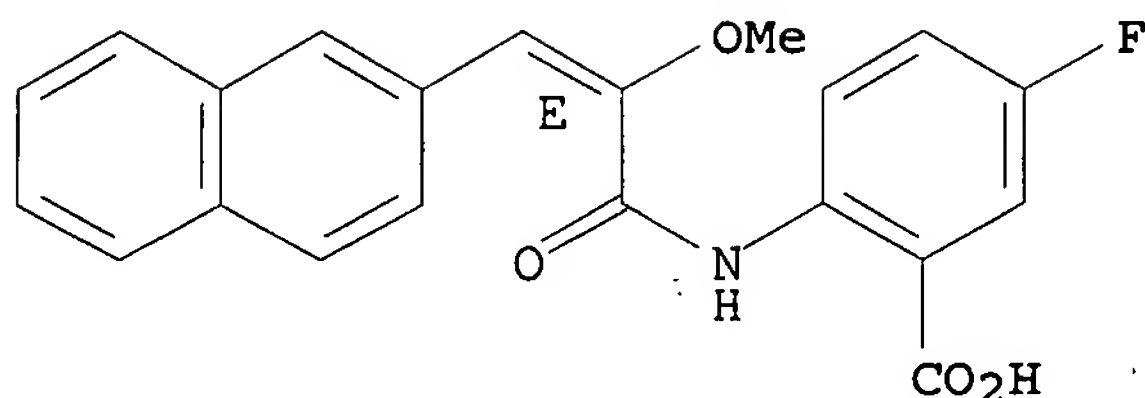
(preparation of carboxylic acid amide telomerase inhibitors for use as medicaments)

RN 321676-00-0 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[[(2E)-2-methoxy-3-(2-naphthalenyl)-1-oxo-2-propenyl]amino]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.





IC ICM A61K031-00

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 23, 63

IT	99196-74-4P	99754-06-0P	321674-52-6P	321674-54-8P	321674-56-0P
	321674-58-2P	321674-63-9P	321674-65-1P	321674-67-3P	
	321674-75-3P	321674-77-5P	321674-79-7P	321674-81-1P	
	321674-83-3P	321674-86-6P	321674-88-8P	321674-91-3P	
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321679-02-1P 321679-04-3P 321679-06-5P 321679-08-7P  
321679-10-1P 321679-12-3P 321679-14-5P

(preparation of carboxylic acid amide telomerase inhibitors for use as medicaments)

L11 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:840750 HCAPLUS

DOCUMENT NUMBER: 134:159356

TITLE: Studies with substrate and cofactor analogues provide evidence for a radical mechanism in the chorismate synthase reaction

AUTHOR(S): Osborne, Andrew; Thorneley, Roger N. F.; Abell, Chris; Bornemann, Stephen

CORPORATE SOURCE: Biological Chemistry Department, John Innes Centre, Norwich Research Park, Norwich, NR4 7UH, UK

SOURCE: Journal of Biological Chemistry (2000), 275(46), 35825-35830

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 01 Dec 2000

AB Chorismate synthase catalyzes the conversion of 5-enolpyruvylshikimate 3-phosphate (EPSP) to chorismate. The strict requirement for a reduced FMN cofactor and a trans-1,4-elimination are unusual. (6R)-6-Fluoro-EPSP was shown to be converted to chorismate stoichiometrically with enzyme-active sites in the presence of dithionite. This conversion was associated with the oxidation of FMN to give a stable flavin semiquinone. The IC50 of the fluorinated substrate analog was 0.5 and 250  $\mu$ M with the Escherichia coli enzyme, depending on whether it was preincubated with the enzyme or not. The lack of dissociation of the flavin semiquinone and chorismate from the enzyme appears to be the basis of the essentially irreversible inhibition by this analog. A dithionite-dependent transient formation of flavin semiquinone during turnover of (6S)-6-fluoro-EPSP has been observed. These reactions are best rationalized by radical chemical that is strongly supportive of a radical mechanism occurring during normal turnover. The lack of activity with 5-deaza-FMN provides addnl. evidence for the role of flavin in catalysis by the E. coli enzyme.

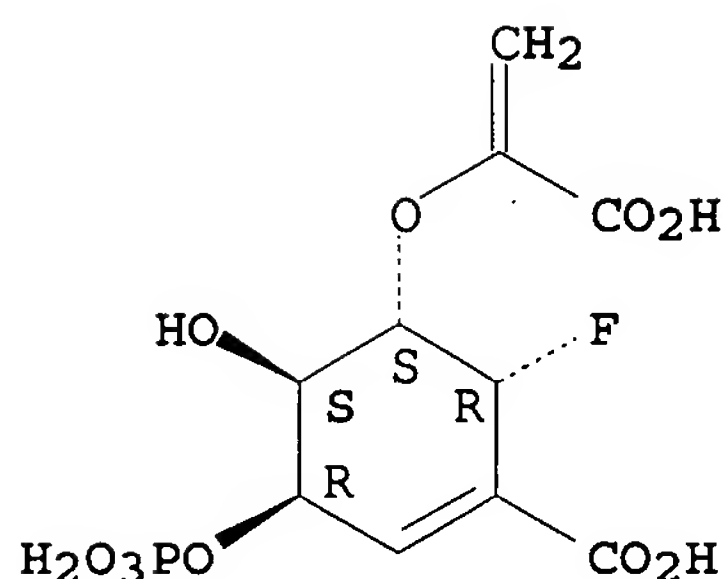
IT 137234-10-7

(studies with substrate and cofactor analogs provide evidence for a radical mechanism in chorismate synthase reaction)

RN 137234-10-7 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



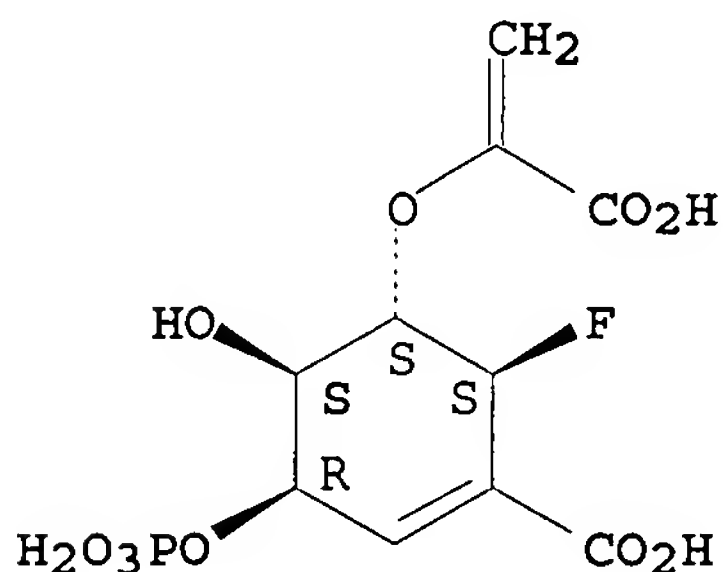
IT 137330-49-5

(studies with substrate and cofactor analogs provide evidence for a radical mechanism in chorismate synthase reaction)

RN 137330-49-5 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 7-4 (Enzymes)

IT 9077-07-0, Chorismate synthase 137234-10-7

(studies with substrate and cofactor analogs provide evidence for a radical mechanism in chorismate synthase reaction)

IT 146-17-8, FMN 89771-75-5 137330-49-5

(studies with substrate and cofactor analogs provide evidence for a radical mechanism in chorismate synthase reaction)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:165596 HCAPLUS

DOCUMENT NUMBER: 133:4543

TITLE: Biotransformations to generate fluorinated analogues of shikimate pathway intermediates

AUTHOR(S): Osborne, Andrew P.; Parker, Emily J.; Abell, Chris

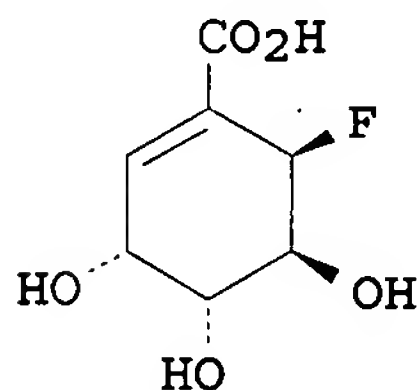
CORPORATE SOURCE: University Chemical Laboratory, Cambridge, CB2 1EW, UK

SOURCE: Fluorinated Bioactive Compounds in the Agricultural & Medical Fields, Proceedings of the Conference, Brussels, Sept. 13-15, 1999 (1999), 13/1-13/10. Chemical & Polymer: Hemel Hempstead, UK.

CODEN: 68SGA2

DOCUMENT TYPE: Conference

LANGUAGE: English  
 ED Entered STN: 14 Mar 2000  
 GI



I

AB (6R)- (I) and (6S)-6-Fluoroshikimic acids exhibit interesting antibiotic properties. The enzymes of the shikimate pathway have been used in the systemic generation of related fluorinated analogs of all pathway intermediates up to and beyond (6R)- and (6S)-6-fluoroshikimic acids. The enzymic prepns. of (6R)-fluoroEPSP and 2-fluorochorismic are described. Both fluorinated analogs are proposed to be mechanism based irreversible inhibitors for E. coli chorismate synthase and E. coli PABA synthase resp.

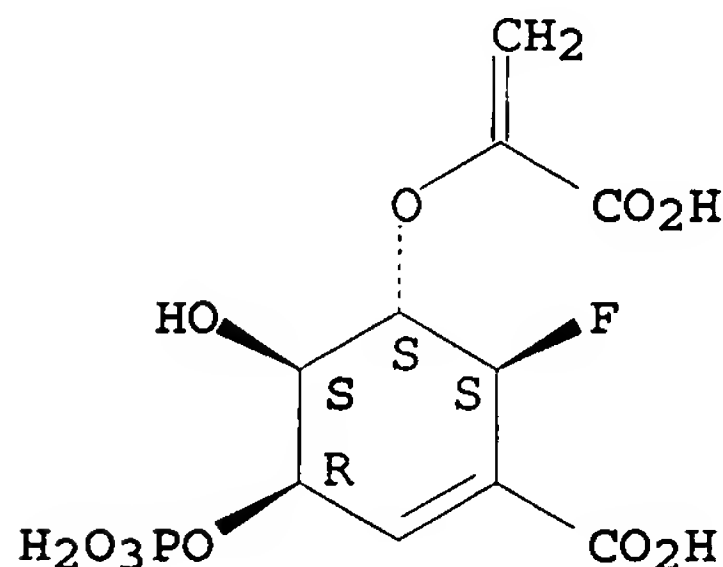
IT 137330-49-5P

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

RN 137330-49-5 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



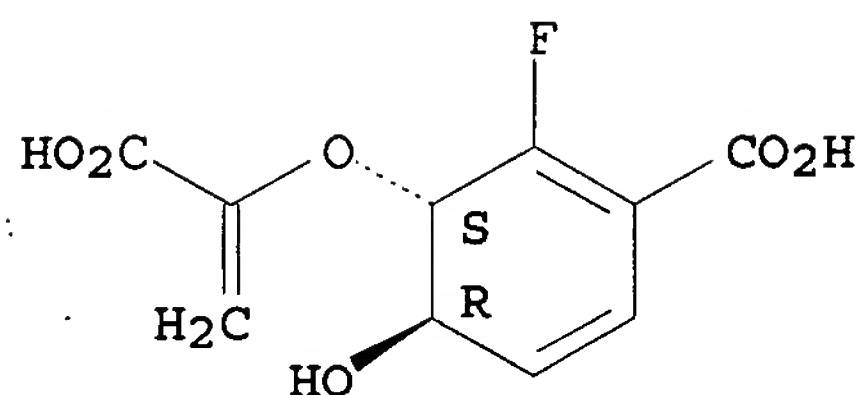
IT 170170-99-7P, 2-Fluorochorismic acid

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

RN 170170-99-7 HCAPLUS

CN 1,5-Cyclohexadiene-1-carboxylic acid, 3-[(1-carboxyethenyl)oxy]-2-fluoro-4-hydroxy-, (3S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



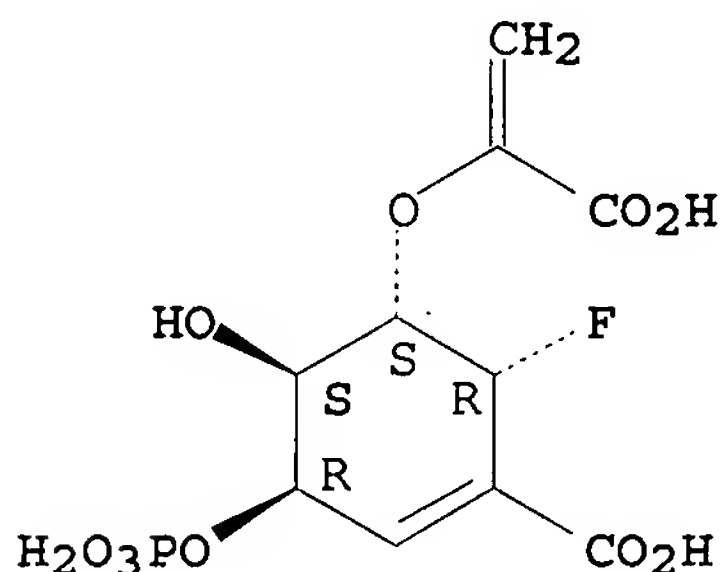
IT 137234-10-7P

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

RN 137234-10-7 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 26-9 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1, 7

IT 137330-49-5P

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

IT 170170-99-7P, 2-Fluorochochismic acid

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

IT 137234-10-7P

(biotransformations to generate fluorinated analogs of shikimate pathway intermediates)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:68420 HCAPLUS

DOCUMENT NUMBER: 132:107776

TITLE: Preparation of aryl vinyl ether derivatives as herbicides

INVENTOR(S): Ray, Nicholas Charles; White, Catherine  
Jacqueline; Gingell, Michael; Pettit, Simon Neil;  
Raphy, Gilles

PATENT ASSIGNEE(S): Rhone-Poulenc Agriculture Ltd., UK

SOURCE: PCT Int. Appl., 130 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

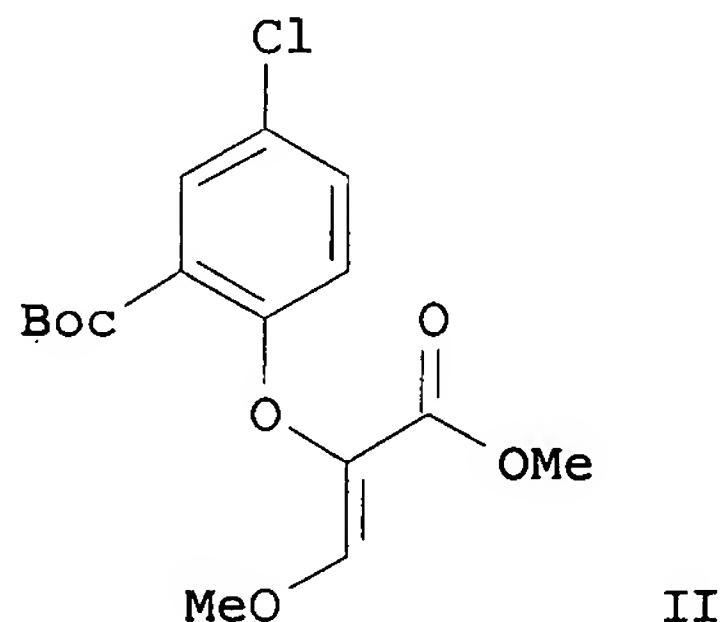
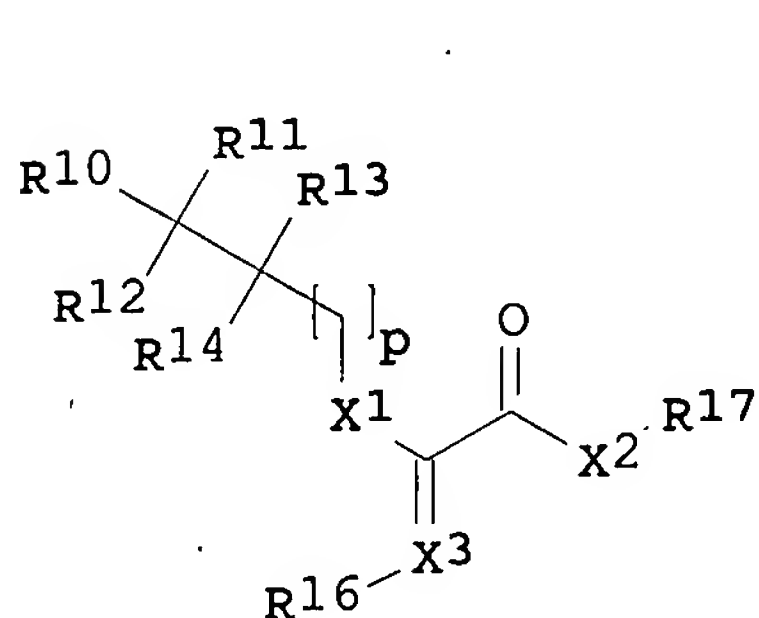
## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000003975	A2	20000127	WO 1999-EP5470	19990716
WO 2000003975	A3	20000803		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9954158	A1	20000207	AU 1999-54158	19990716
EP 1097117	A2	20010509	EP 1999-940084	19990716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002520384	T	20020709	JP 2000-560084	19990716
PRIORITY APPLN. INFO.:			GB 1998-15508	A 19980716
			GB 1998-16783	A 19980731
			GB 1998-26903	A 19981207
			WO 1999-EP5470	W 19990716

OTHER SOURCE(S): MARPAT 132:107776

ED Entered STN: 28 Jan 2000

GI

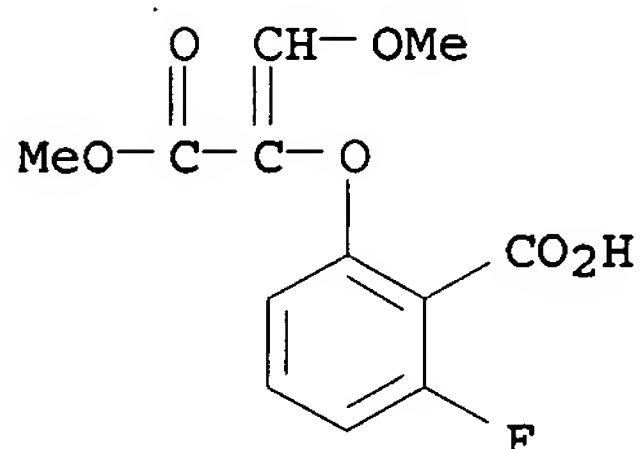


AB The title compds. [I; p = 0-1; X1 = O, NH, S; X2 = O, S, NH, etc.; X3 = N, CH, alkyl substituted by alkoxy carbonyl, OH, etc.; R17 = H, alkyl, alkenyl, etc.; R16 = OH, O(alkyl), O(alkenyl), etc.; R10 = CH<sub>2</sub>NO<sub>2</sub>, CH<sub>2</sub>N<sub>3</sub>, CH<sub>2</sub>CN, etc.; R11, R13 = H, alkyl; R11 and R13 may be together a simple bond creating a double bond with the carbon atom to which they are attached; R12, R14 = H, alkyl, a simple bond], useful for controlling weeds, were prepared. Thus, treatment of Me 2-(2-tert-butoxycarbonyl-4-chlorophenoxy)-3-hydroxypropenoate with Me<sub>2</sub>SO<sub>4</sub> and K<sub>2</sub>CO<sub>3</sub> in DMF afforded II which showed 100% reduction in the growth of one or more weeds species such as *Amaranthus retroflexus*, *Abutilon theophrasti*, *Galium aparine*, etc.

IT 255906-61-7P

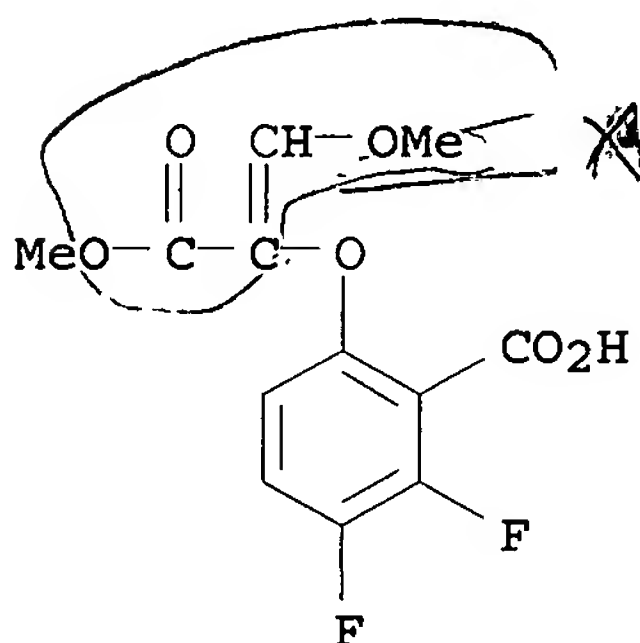
(preparation of aryl vinyl ether derivs. as herbicides)

RN 255906-61-7 HCAPLUS  
 CN Benzoic acid, 2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-6-fluoro-  
 (9CI) (CA INDEX NAME)

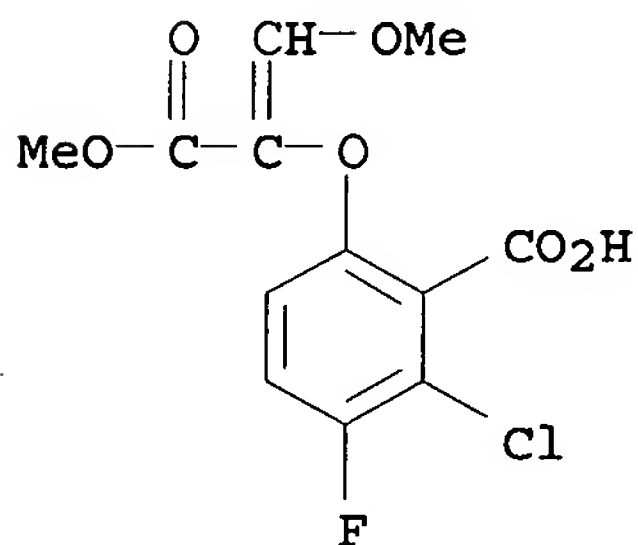


IT 255906-67-3P 255906-68-4P 255906-69-5P  
 255906-72-0P 255907-24-5P 255907-25-6P  
 255907-59-6P 255907-68-7P 255907-71-2P  
 255908-00-0P 255908-01-1P 255908-02-2P  
 255908-03-3P 255908-04-4P 255908-05-5P  
 255908-13-5P 255908-14-6P 255908-15-7P  
 255908-17-9P  
 (preparation of aryl vinyl ether derivs. as herbicides)

RN 255906-67-3 HCAPLUS  
 CN Benzoic acid, 2,3-difluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]- (9CI) (CA INDEX NAME)

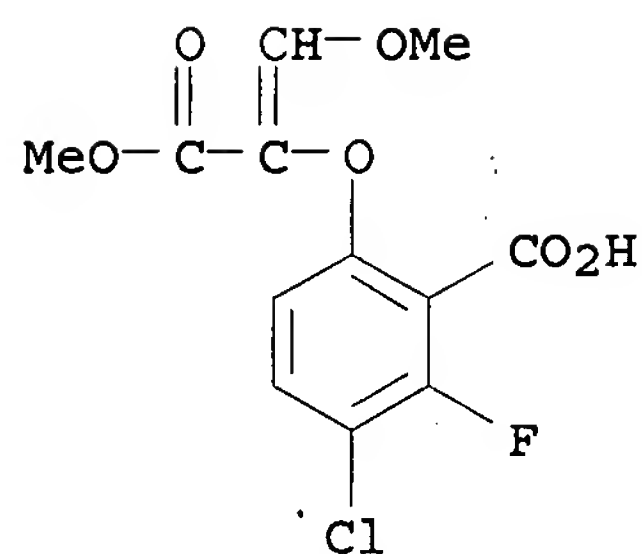


RN 255906-68-4 HCAPLUS  
 CN Benzoic acid, 2-chloro-3-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]- (9CI) (CA INDEX NAME)



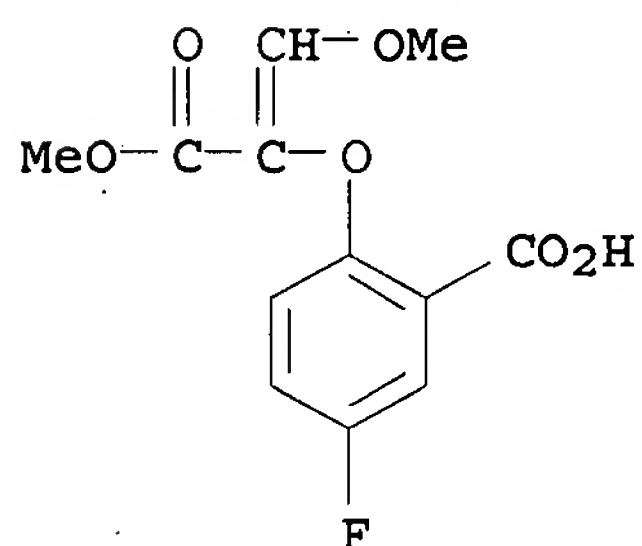
RN 255906-69-5 HCAPLUS  
 CN Benzoic acid, 3-chloro-2-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]- (9CI) (CA INDEX NAME)





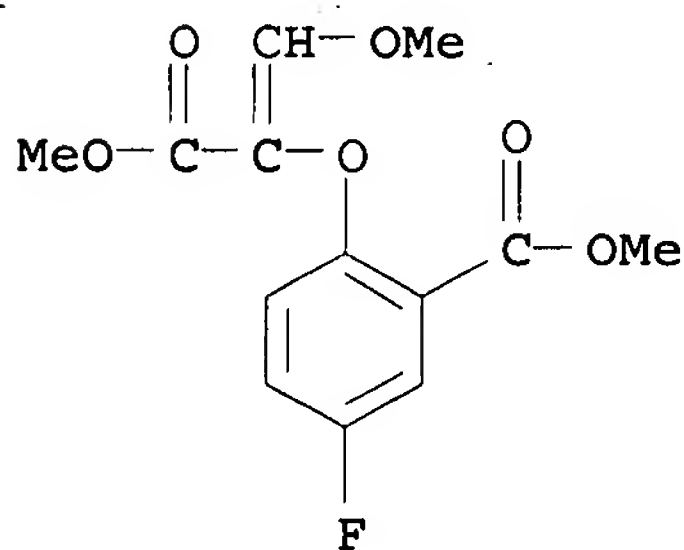
RN 255906-72-0 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy] -  
(9CI) (CA INDEX NAME)



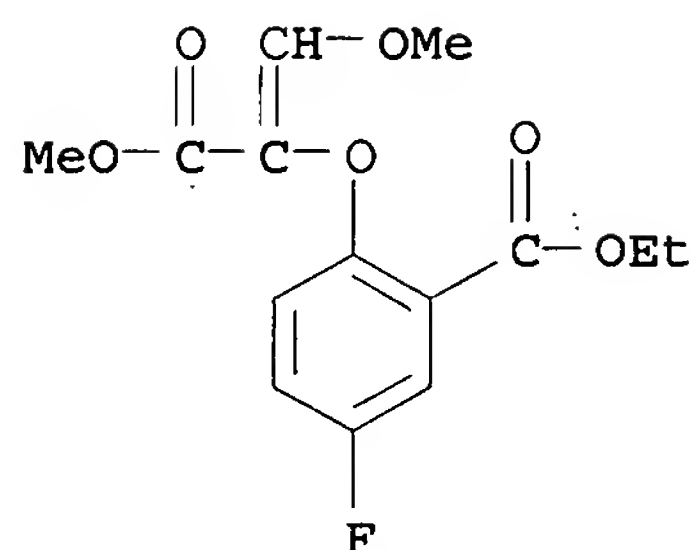
RN 255907-24-5 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy] -,  
methyl ester (9CI) (CA INDEX NAME)



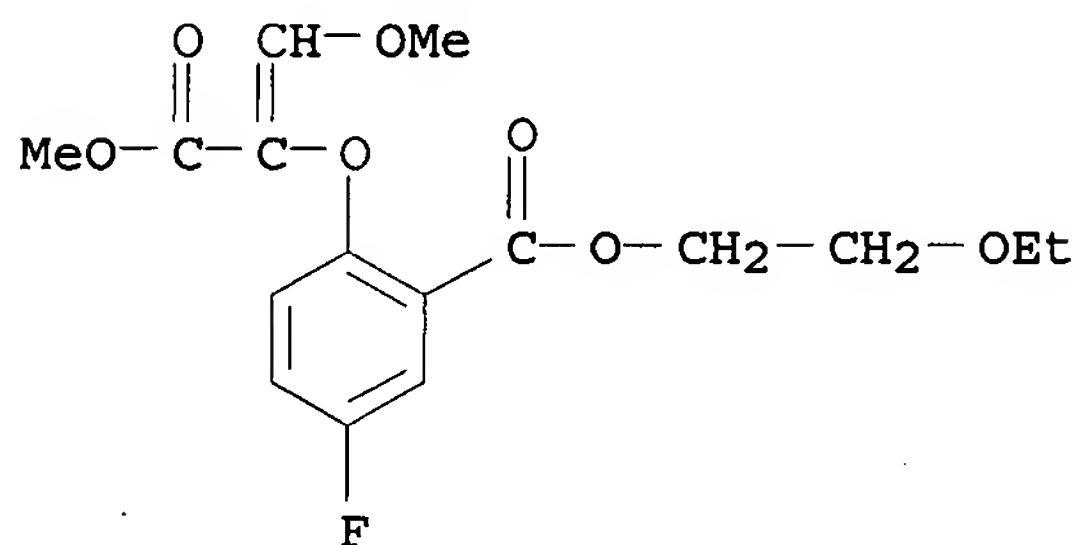
RN 255907-25-6 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy] -,  
ethyl ester (9CI) (CA INDEX NAME)



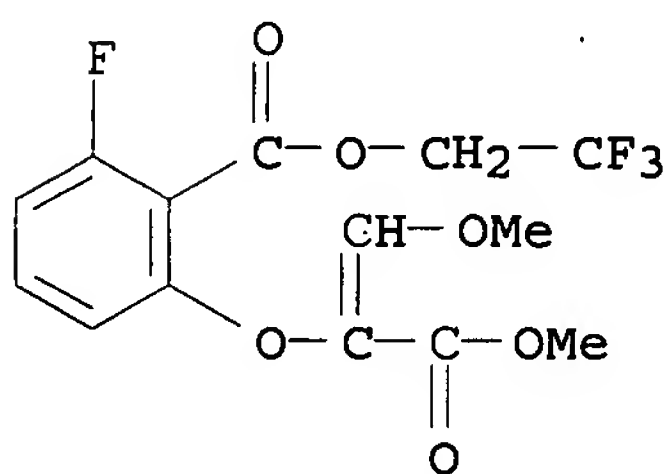
RN 255907-59-6 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



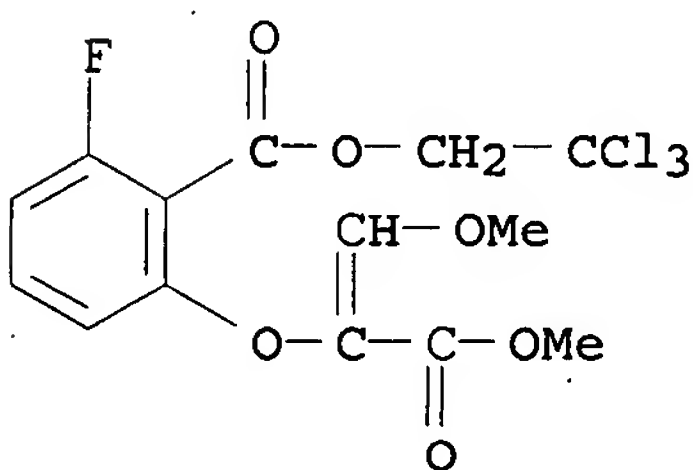
RN 255907-68-7 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2,2,2-trifluoroethyl ester (9CI) (CA INDEX NAME)



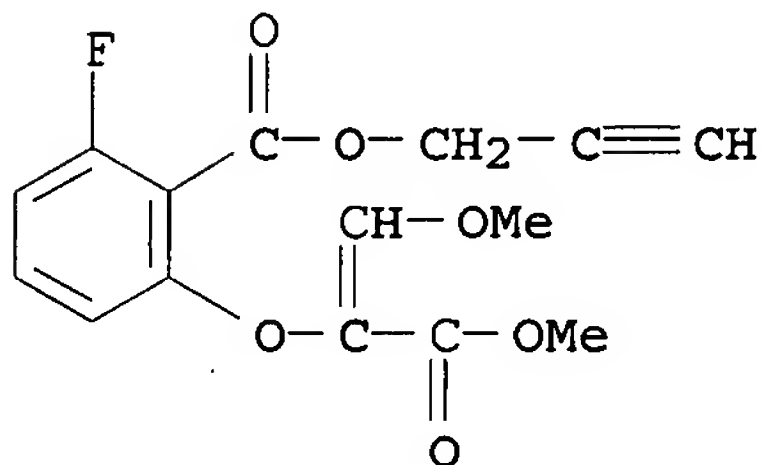
RN 255907-71-2 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2,2,2-trichloroethyl ester (9CI) (CA INDEX NAME)



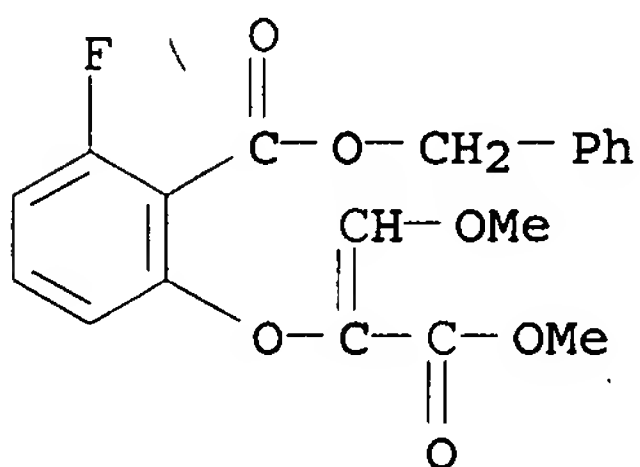
RN 255908-00-0 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-propynyl ester (9CI) (CA INDEX NAME)



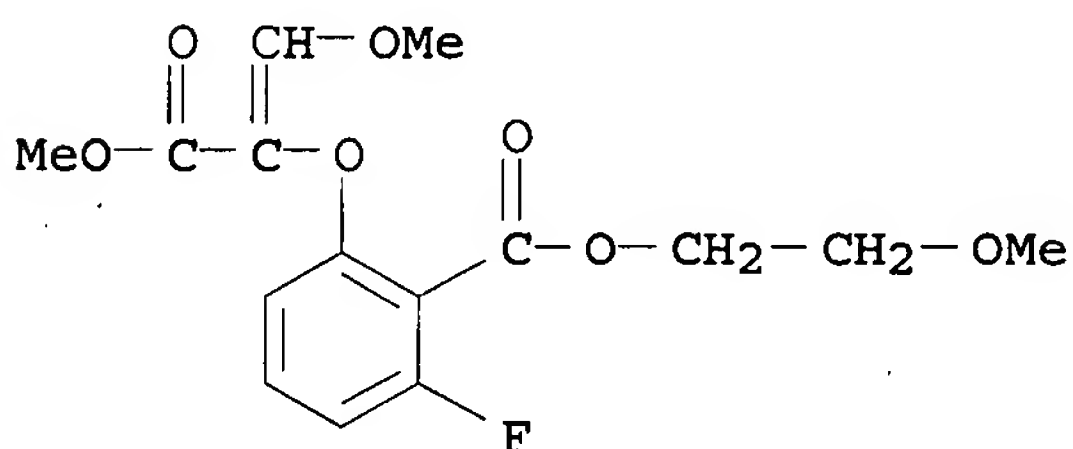
RN 255908-01-1 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, phenylmethyl ester (9CI) (CA INDEX NAME)



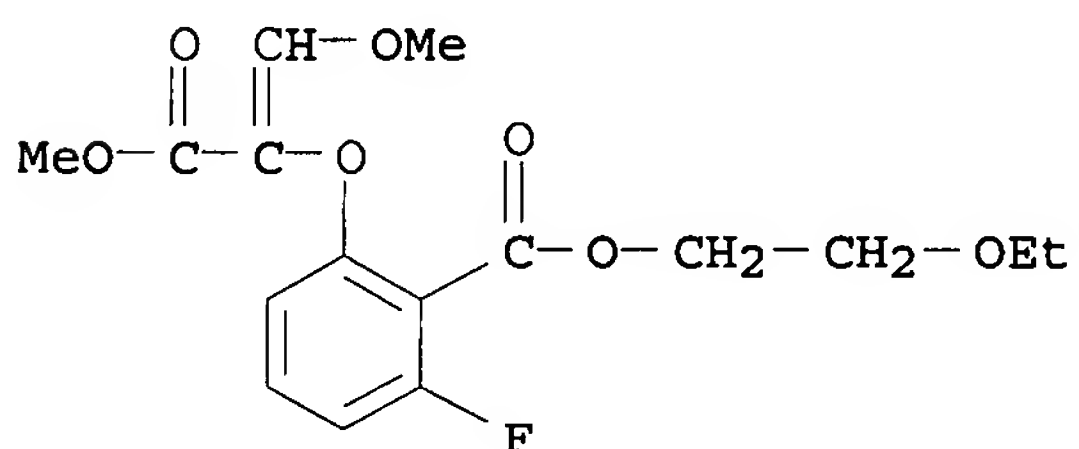
RN 255908-02-2 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



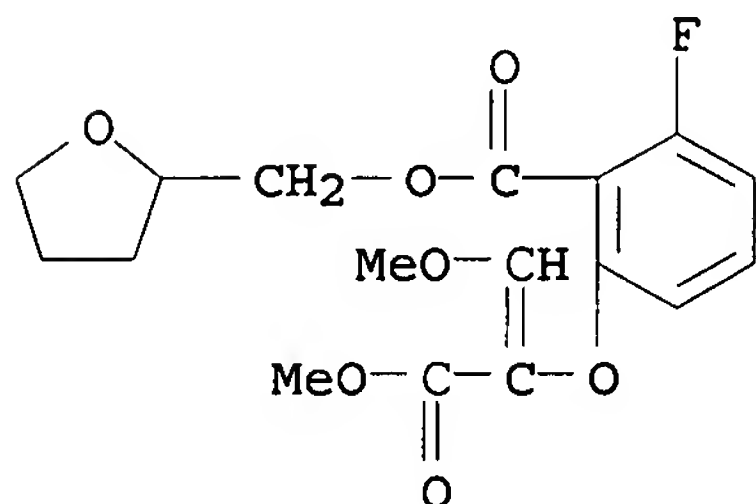
RN 255908-03-3 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



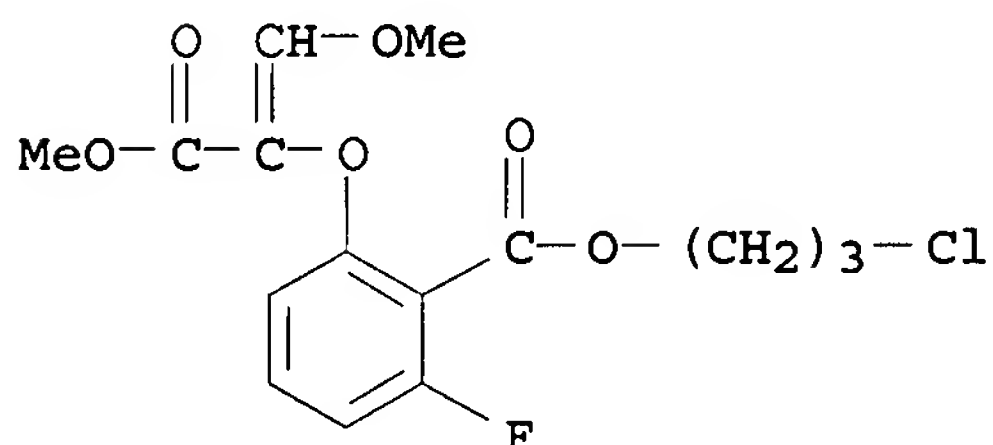
RN 255908-04-4 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



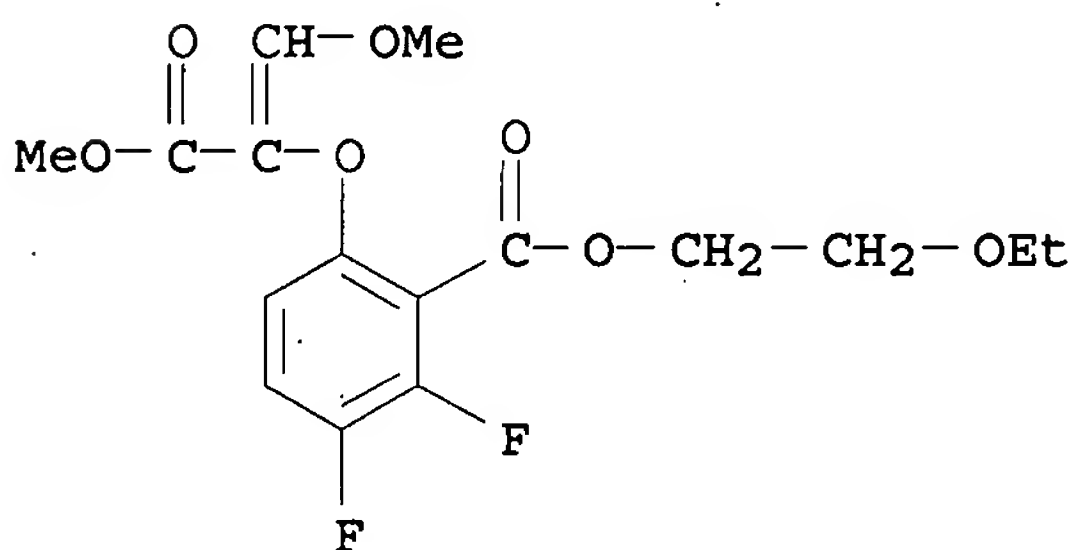
RN 255908-05-5 HCAPLUS

CN Benzoic acid, 2-fluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 3-chloropropyl ester (9CI) (CA INDEX NAME)



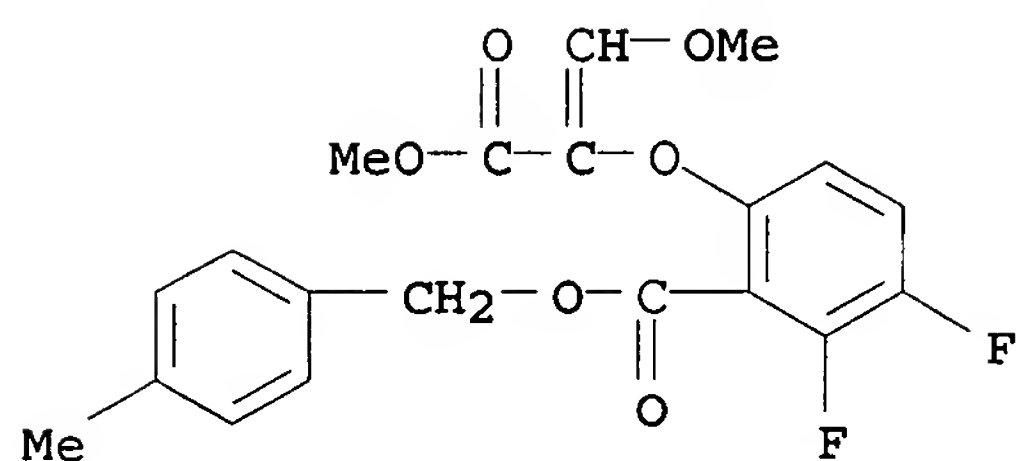
RN 255908-13-5 HCAPLUS

CN Benzoic acid, 2,3-difluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



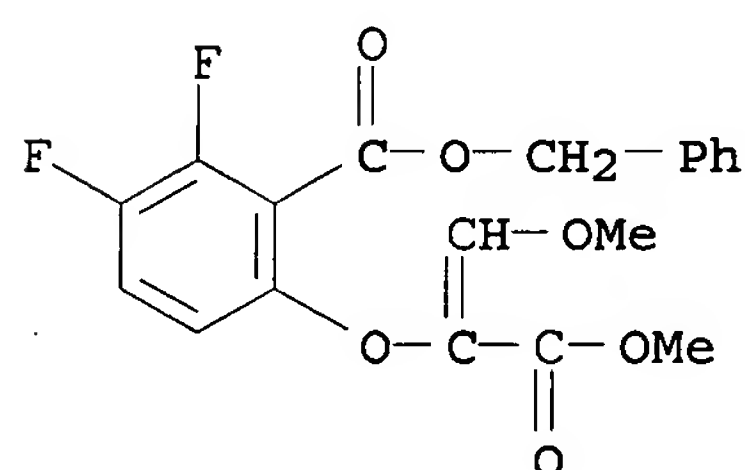
RN 255908-14-6 HCAPLUS

CN Benzoic acid, 2,3-difluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)



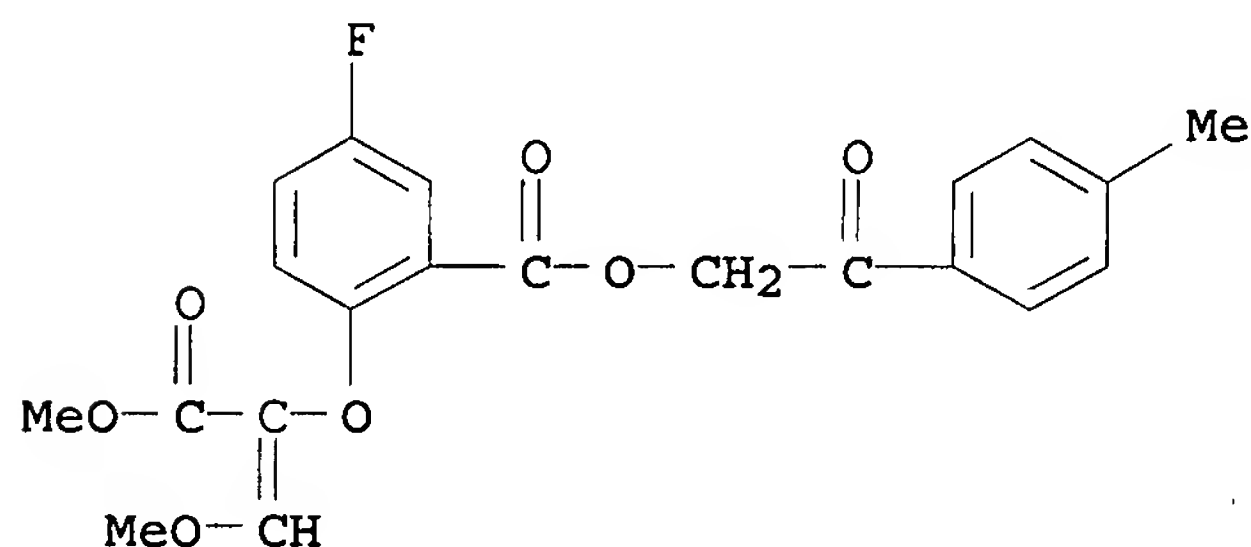
RN 255908-15-7 HCAPLUS

CN Benzoic acid, 2,3-difluoro-6-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 255908-17-9 HCAPLUS

CN Benzoic acid, 5-fluoro-2-[[2-methoxy-1-(methoxycarbonyl)ethenyl]oxy]-, 2-(4-methylphenyl)-2-oxoethyl ester (9CI) (CA INDEX NAME)



IC ICM C07C258-06

ICS C07C323-54; C07C323-58; C07D213-64; C07D312-70; A01N031-06; A01N033-08; A01N043-40

CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 5

IT 255906-61-7P 255906-63-9P 255906-77-5P 255906-78-6P  
255906-80-0P 255906-92-4P 255908-41-9P  
(preparation of aryl vinyl ether derivs. as herbicides)

IT 255906-60-6P 255906-62-8P 255906-64-0P 255906-65-1P  
255906-66-2P 255906-67-3P 255906-68-4P  
255906-69-5P 255906-70-8P 255906-71-9P  
255906-72-0P 255906-73-1P 255906-74-2P 255906-75-3P  
255906-76-4P 255906-79-7P 255906-81-1P 255906-82-2P  
255906-83-3P 255906-84-4P 255906-85-5P 255906-86-6P  
255906-87-7P 255906-88-8P 255906-89-9P 255906-90-2P  
255906-91-3P 255906-93-5P 255906-94-6P 255906-95-7P

255906-96-8P 255906-97-9P 255906-98-0P 255906-99-1P  
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255908-37-3P 255908-38-4P 255908-39-5P 255908-40-8P  
255908-58-8P 255908-59-9P 255911-01-4P

(preparation of aryl vinyl ether derivs. as herbicides)

L11 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:640263 HCAPLUS

DOCUMENT NUMBER: 127:318956

TITLE: Preparation of herbicidal substituted  
3-aryl-pyrazoles

INVENTOR(S): Hamper, Bruce C.; McDermott, Lisa L.

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: U.S., 26 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

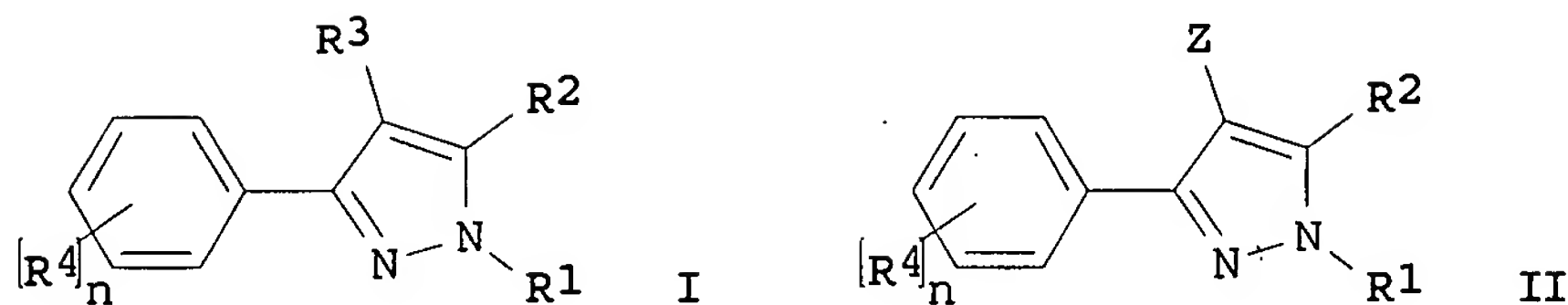
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5672715	A	19970930	US 1995-476522	19950607
PRIORITY APPLN. INFO.:			US 1995-476522	19950607

OTHER SOURCE(S): MARPAT 127:318956

ED Entered STN: 09 Oct 1997

GI



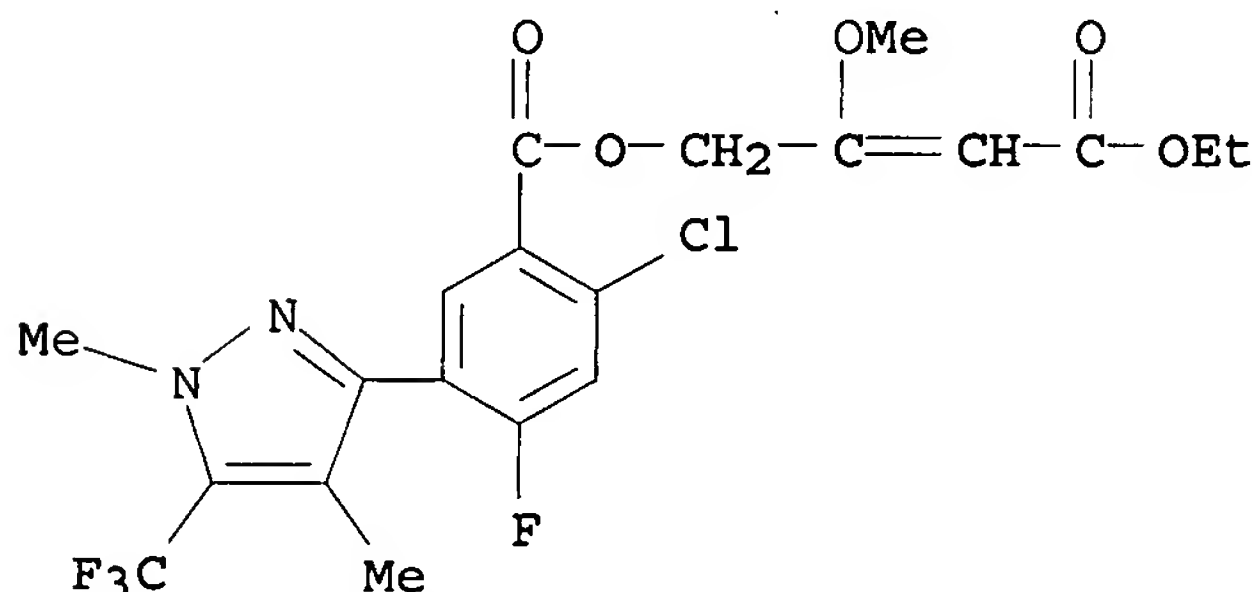
AB The title compds. [I; R1 = C1-8 alkyl, C3-8 cycloalkyl, cycloalkenyl, etc.; R2 = C1-6 haloalkyl; R3 = C1-6 alkyl, CHO, CH2OH; R4 = R1, thioalkyl, halo, etc.; n = 1-5], useful as herbicides, were prepared by reacting the pyrazole II [Z = Cl, Br, I] with a suitable base followed by reacting the resultant anion with a C1-6 alkyl halide, di(C1-6 alkyl)sulfate or di(C1-6 alkyl)formamide. Thus, treatment of 4-bromo-3-(2,5-difluorophenyl)-1-methyl-5-(trifluoromethyl)-1H-pyrazole with BuLi/hexanes in THF followed by addition of MeI afforded 72% I [R1 = R3 = Me; R2 = CF3; R4 = 2,5-F2] which showed 65% velvetleaf inhibition in preemergence tests.

IT 186340-81-8P

(preparation of herbicidal substituted 3-aryl-pyrazoles)

RN 186340-81-8 HCAPLUS

CN Benzoic acid, 2-chloro-5-[1,4-dimethyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-4-fluoro-, 4-ethoxy-2-methoxy-4-oxo-2-butenyl ester (9CI) (CA INDEX NAME)



IC ICM C07D231-12

INCL 548374100

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 5

IT	186340-11-4P	186340-30-7P	186340-32-9P	186340-35-2P
	186340-37-4P	186340-38-5P	186340-39-6P	186340-40-9P
	186340-41-0P	186340-42-1P	186340-43-2P	186340-44-3P
	186340-46-5P	186340-48-7P	186340-50-1P	186340-52-3P
	186340-54-5P	186340-56-7P	186340-58-9P	186340-60-3P
	186340-62-5P	186340-64-7P	186340-66-9P	186340-68-1P
	186340-70-5P	186340-71-6P	186340-73-8P	186340-74-9P
	186340-75-0P	186340-76-1P	186340-77-2P	186340-78-3P
	186340-79-4P	186340-80-7P	186340-81-8P	186340-82-9P
	186340-83-0P	186340-84-1P	186340-85-2P	186340-86-3P
	186340-87-4P	186340-89-6P	186340-90-9P	186340-92-1P
	186340-94-3P	186340-96-5P	186340-97-6P	186340-98-7P
	195821-34-2P			

(preparation of herbicidal substituted 3-aryl-pyrazoles)

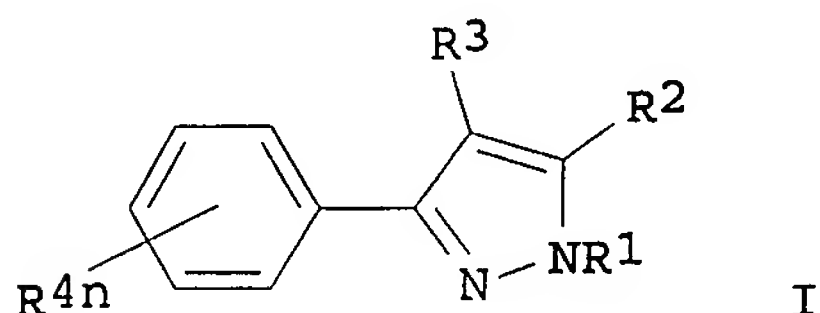
L11 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN



ACCESSION NUMBER: 1997:616997 HCAPLUS  
 DOCUMENT NUMBER: 127:244288  
 TITLE: Preparation of herbicidal substituted  
 3-arylpyrazoles  
 INVENTOR(S): Hamper, Bruce C.; McDermott, Lisa L.  
 PATENT ASSIGNEE(S): Monsanto Co., USA  
 SOURCE: U.S., 26 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5668088	A	19970916	US 1995-476518	19950607
PRIORITY APPLN. INFO.:			US 1995-476518	19950607

OTHER SOURCE(S): MARPAT 127:244288  
 ED Entered STN: 27 Sep 1997  
 GI



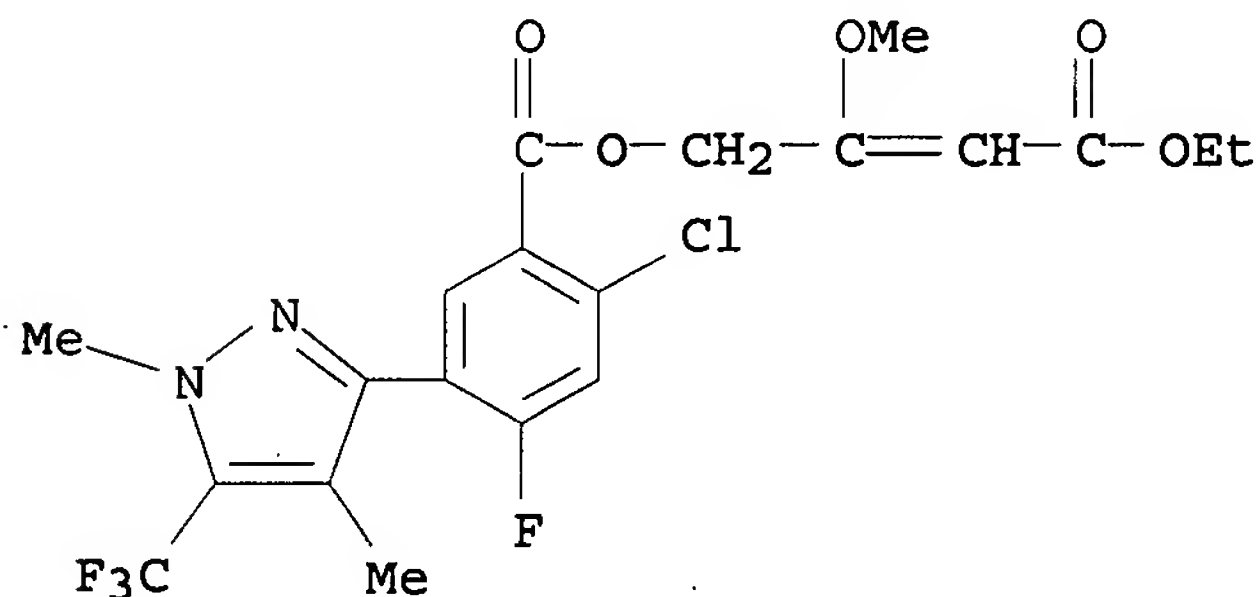
AB Substituted 3-arylpyrazoles I (R1 = alkyl, cycloalkyl, cycloalkenyl, etc.; R2 = haloalkyl; R3 = R2, alkyl, CHO, CH2OH, R4 = R1, thioalkyl, halo, amino, nitro, etc.; n = 1-5) are prepared as herbicides.

IT 186340-81-8P

(preparation as herbicide)

RN 186340-81-8 HCAPLUS

CN Benzoic acid, 2-chloro-5-[1,4-dimethyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-4-fluoro-, 4-ethoxy-2-methoxy-4-oxo-2-butenyl ester (9CI) (CA INDEX NAME)



IC ICM A01N043-56

ICS C07D231-12

INCL 504280000

CC 5-3 (Agrochemical Bioregulators)

## Section cross-reference(s): 28

IT 186340-11-4P 186340-14-7P 186340-17-0P 186340-30-7P  
 186340-32-9P 186340-33-0P 186340-34-1P 186340-35-2P  
 186340-36-3P 186340-37-4P 186340-38-5P 186340-39-6P  
 186340-40-9P 186340-41-0P 186340-42-1P 186340-43-2P  
 186340-44-3P 186340-46-5P 186340-48-7P 186340-50-1P  
 186340-54-5P 186340-56-7P 186340-58-9P 186340-60-3P  
 186340-62-5P 186340-64-7P 186340-66-9P 186340-68-1P  
 186340-70-5P 186340-71-6P 186340-73-8P 186340-74-9P  
 186340-75-0P 186340-76-1P 186340-77-2P 186340-78-3P  
 186340-79-4P 186340-80-7P 186340-81-8P 186340-82-9P  
 186340-83-0P 186340-84-1P 186340-85-2P 186340-86-3P  
 186340-87-4P 186340-89-6P 186340-90-9P 186340-92-1P  
 186340-94-3P 186340-96-5P 186340-97-6P 186340-98-7P  
 195821-33-1P 195821-34-2P  
 (preparation as herbicide)

L11 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:119251 HCAPLUS

DOCUMENT NUMBER: 126:128271

TITLE: Preparation of herbicidal substituted  
3-arylpyrazoles

INVENTOR(S): Hamper, Bruce C.; Mcdermott, Lisa L.

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

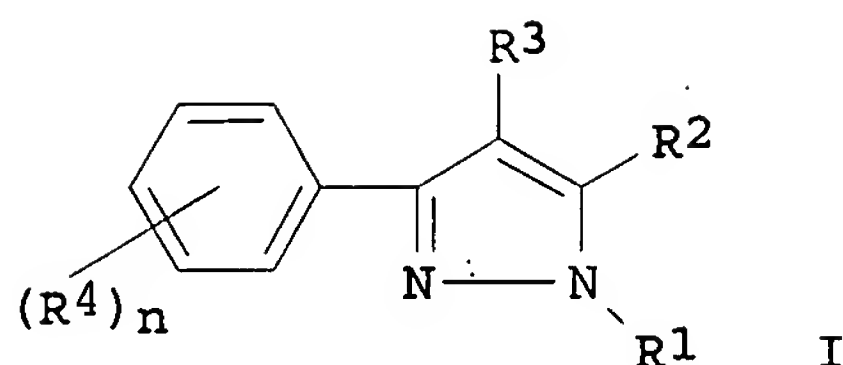
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640643	A1	19961219	WO 1996-US8648	19960603
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5675017	A	19971007	US 1995-476794	19950607
ZA 9604324	A	19961206	ZA 1996-4324	19960528
AU 9659775	A	19961230	AU 1996-59775	19960603
AU 713398	B2	19991202		
EP 846105	A1	19980610	EP 1996-917097	19960603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
JP 11506767	T	19990615	JP 1996-501176	19960603
HU 9900968	A2	19990728	HU 1999-968	19960603
HU 9900968	A3	20010828		
PRIORITY APPLN. INFO.:			US 1995-476794	A 19950607
			WO 1996-US8648	W 19960603

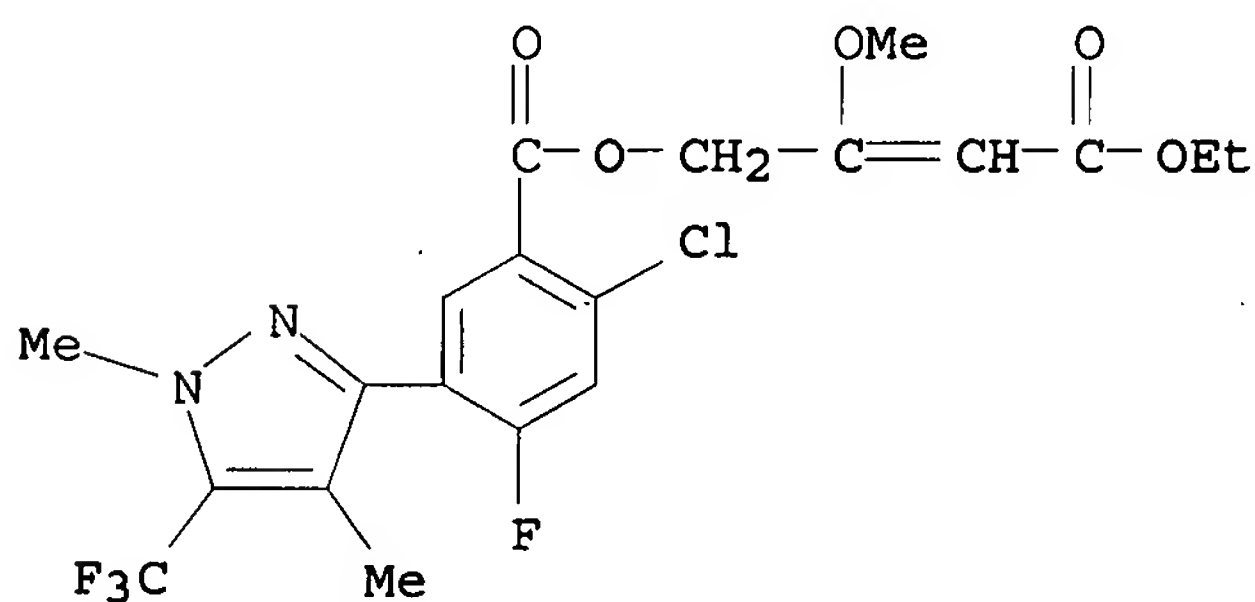
OTHER SOURCE(S): CASREACT 126:128271; MARPAT 126:128271

ED Entered STN: 21 Feb 1997

GI



- AB The invention relates to substituted arylpyrazoles I [R1 = (un)substituted C1-8 alkyl; C3-8 cycloalkyl, cycloalkenyl, cycloalkylalkyl, cycloalkenylalkyl, C2-8 alkenyl or alkynyl; benzyl, etc.; R2 = C1-6 haloalkyl; R3 = C1-6 alkyl, C1-6 haloalkyl, CHO or CH2OH; R4 = R1, thioalkyl, polyalkoxyalkyl, carbamyl, halo, amino, nitro, cyano, hydroxy, C3-10 heterocyclyl, C6-12 aryl, aralkyl or alkaryl, etc.; n = 1-5] herbicides and their preparation.
- IT 186340-81-8P  
(preparation as herbicide).
- RN 186340-81-8 HCAPLUS
- CN Benzoic acid, 2-chloro-5-[1,4-dimethyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-4-fluoro-, 4-ethoxy-2-methoxy-4-oxo-2-butenyl ester (9CI) (CA INDEX NAME)



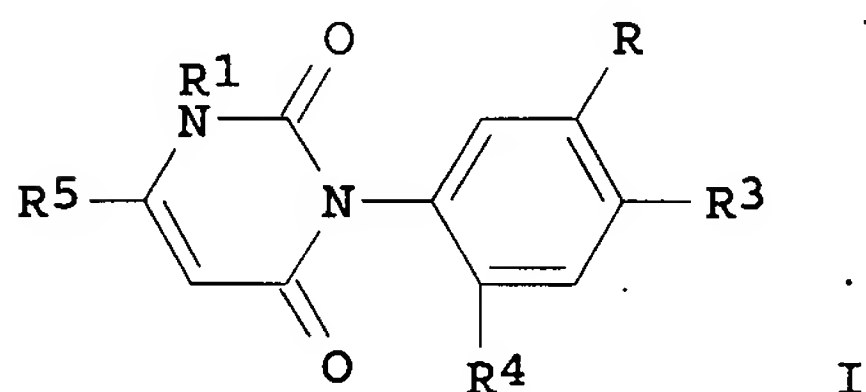
- IC ICM C07D231-12  
ICS A01N043-56; C07D405-12; C07D413-12
- CC 5-3 (Agrochemical Bioregulators)  
Section cross-reference(s): 28
- IT 186340-11-4P 186340-14-7P 186340-17-0P 186340-30-7P  
186340-32-9P 186340-33-0P 186340-34-1P 186340-35-2P  
186340-36-3P 186340-37-4P 186340-38-5P 186340-39-6P  
186340-40-9P 186340-41-0P 186340-42-1P 186340-43-2P  
186340-44-3P 186340-46-5P 186340-48-7P 186340-50-1P  
186340-52-3P 186340-54-5P 186340-56-7P 186340-58-9P  
186340-60-3P 186340-62-5P 186340-64-7P 186340-66-9P  
186340-68-1P 186340-70-5P 186340-71-6P 186340-72-7P  
186340-73-8P 186340-74-9P 186340-75-0P 186340-76-1P  
186340-77-2P 186340-78-3P 186340-79-4P 186340-80-7P  
186340-81-8P 186340-82-9P 186340-83-0P 186340-84-1P  
186340-85-2P 186340-86-3P 186340-87-4P 186340-89-6P  
186340-90-9P 186340-92-1P 186340-94-3P 186340-96-5P  
186340-97-6P 186340-98-7P  
(preparation as herbicide)

L11 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1996:167589 HCAPLUS

DOCUMENT NUMBER: 124:202288  
 TITLE: Preparation of 3-(dioxypyrimidino)benzoates and  
 analogs as herbicides  
 INVENTOR(S): Kunz, Walter; Siegrist, Urs; Baumeister, Peter  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: PCT Int. Appl., 126 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9532952	A1	19951207	WO 1995-EP1875	19950517
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9527348	A	19951221	AU 1995-27348	19950517
ZA 9504324	A	19960125	ZA 1995-4324	19950526
PRIORITY APPLN. INFO.:			CH 1994-1647	A 19940527
			WO 1995-EP1875	W 19950517

OTHER SOURCE(S): MARPAT 124:202288  
 ED Entered STN: 22 Mar 1996  
 GI



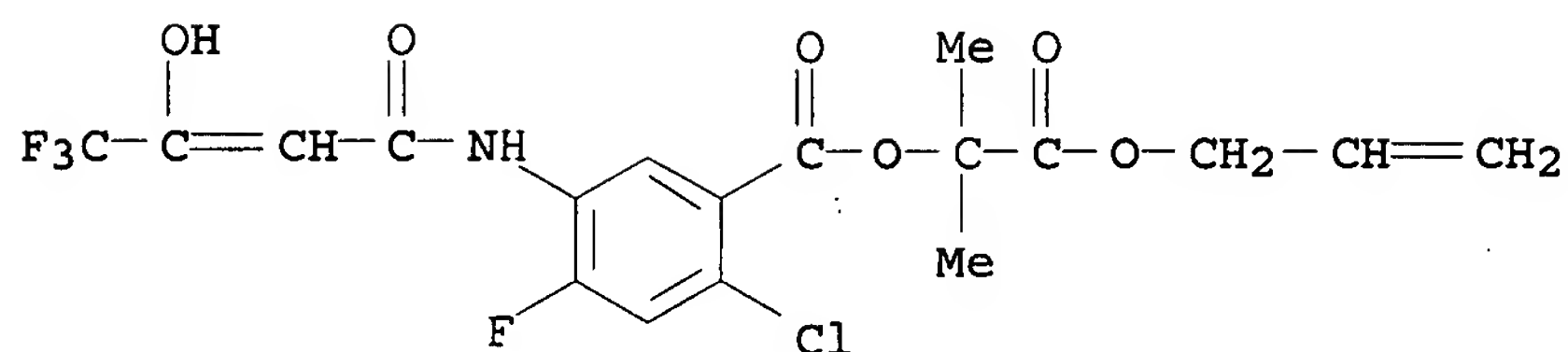
AB Title compds. [I; R = (YQ)<sub>m</sub>(CO)<sub>n</sub>XR<sub>2</sub>; Q = (cyclo)alkylene; R<sub>1</sub> = alk(en)yl, alkynyl; R<sub>2</sub> = (cyclo)alkenyl, haloalkenyl, alkynyl; R<sub>3</sub> = H, halo, alkyl, alkoxy, etc.; R<sub>4</sub> = H, F, Cl; R<sub>5</sub> = (halo)alkyl, alkenyl, alkynyl; X = O, S, alkylimino, etc.; Y = O, S, alkylimino, CO<sub>2</sub>, etc.; m, n = 0 or 1] were prepared as herbicides (no data). Thus, CF<sub>3</sub>COCH<sub>2</sub>CO<sub>2</sub>Et was amidated by 2,5-Cl(H<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>CMe<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>CH:CH<sub>2</sub> and the enamine of the product cyclized with COCl<sub>2</sub> to give, after N-methylation, I (R = CO<sub>2</sub>CMe<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>CH:CH<sub>2</sub>, R<sub>1</sub> = Me, R<sub>3</sub> = Cl, R<sub>4</sub> = H, R<sub>5</sub> = CF<sub>3</sub>).

IT 174489-57-7P

(preparation of 3-(dioxypyrimidino)benzoates and analogs as herbicides)

RN 174489-57-7 HCAPLUS

CN Benzoic acid, 2-chloro-4-fluoro-5-[(4,4,4-trifluoro-3-hydroxy-1-oxo-2-butenyl)amino]-, 1,1-dimethyl-2-oxo-2-(2-propenyloxy)ethyl ester (9CI)  
 (CA INDEX NAME)

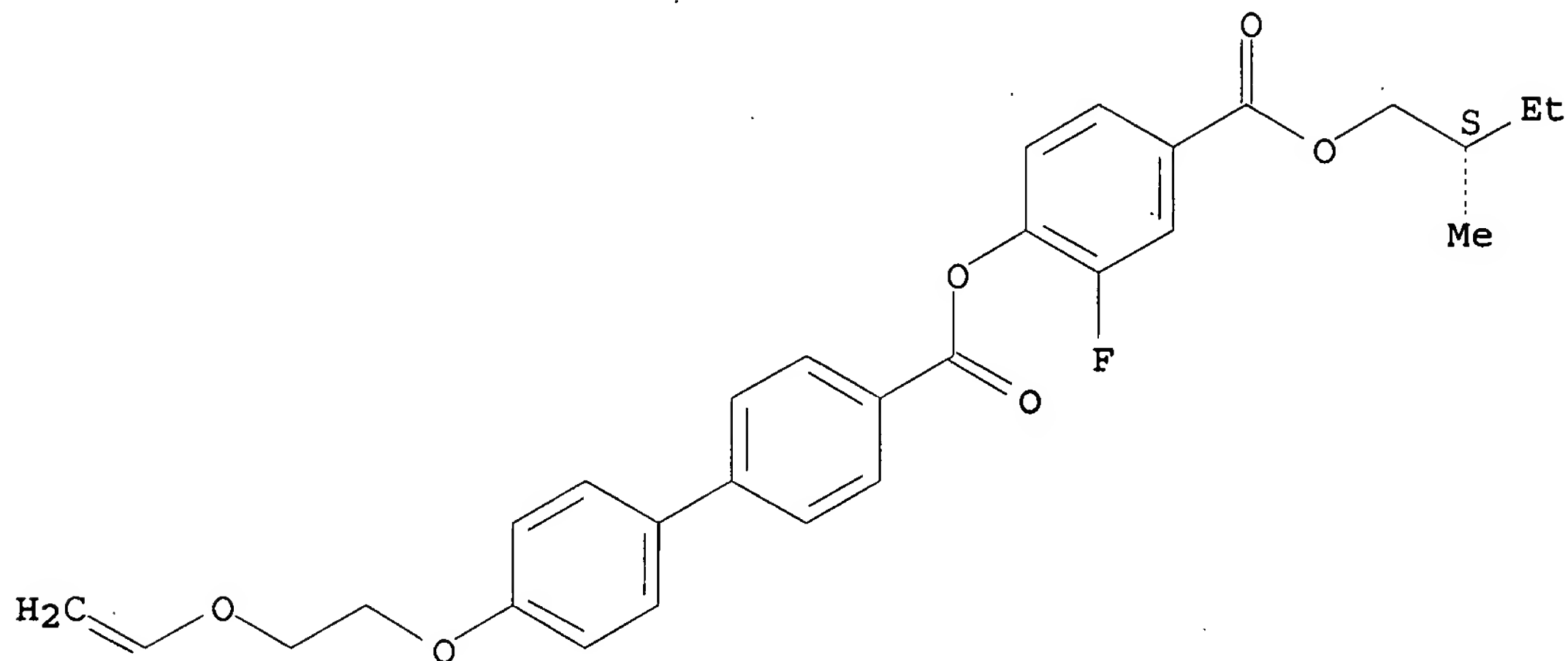


IC ICM C07D239-54  
ICS C07C237-16; C07C235-28; C07C237-42; A01N043-54  
CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 5  
IT 56768-05-9P 84478-64-8P 84478-65-9P 84478-70-6P 84478-85-3P  
103361-42-8P 111332-30-0P 112731-07-4P 114168-88-6P  
114168-89-7P 129911-05-3P 134553-65-4P 134553-67-6P  
153774-20-0P 174489-43-1P 174489-44-2P 174489-45-3P  
174489-46-4P 174489-47-5P 174489-48-6P 174489-49-7P  
174489-50-0P 174489-51-1P 174489-52-2P 174489-53-3P  
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174489-87-3P 174489-88-4P 174489-89-5P 174489-90-8P  
174489-91-9P 174489-92-0P 174489-93-1P 174489-94-2P  
174489-95-3P 174489-98-6P 174489-99-7P 174490-00-7P  
174490-01-8P 174490-02-9P 174490-03-0P 174490-04-1P  
174490-05-2P 174490-06-3P  
(preparation of 3-(dioxypyrimidino)benzoates and analogs as herbicides)

L11 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1996:64293 HCAPLUS  
DOCUMENT NUMBER: 124:118426  
TITLE: Molecular design of ferroelectric liquid  
crystalline polymers  
AUTHOR(S): Hsu, Chain-Shu; Hsiue, Ging-Ho  
CORPORATE SOURCE: Department of Applied Chemistry, National Chiao  
Tung University, Hsinchu, 30050, Taiwan  
SOURCE: Pure and Applied Chemistry (1995), 67(12), 2005-13  
CODEN: PACHAS; ISSN: 0033-4545  
PUBLISHER: Blackwell  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
ED Entered STN: 31 Jan 1996  
AB The characterization of several series of ferroelec. side-chain  
polymers is presented. Differential scanning calorimetry, optical  
polarizing microscopy and x-ray diffraction measurement were used determine  
their thermal transitions and analyze their anisotropic textures. The  
influence of polymer backbones, flexible spacers, mesogenic cores as  
well as chiral end groups on the mesomorphic properties of the  
polymers was discussed.  
IT 173355-62-9D, hydrosilation products with Me H siloxanes  
173355-63-0D, hydrosilation products with Me H siloxanes  
173355-64-1D, hydrosilation products with Me H siloxanes  
(mol. design in relation to to thermal and phase transitions in  
ferroelec. chiral smectic liquid-crystalline polysiloxanes and  
polymethacrylates)  
RN 173355-62-9 HCAPLUS  
CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-(ethenyloxy)ethoxy]-,

2-fluoro-4-[(2-methylbutoxy)carbonyl]phenyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

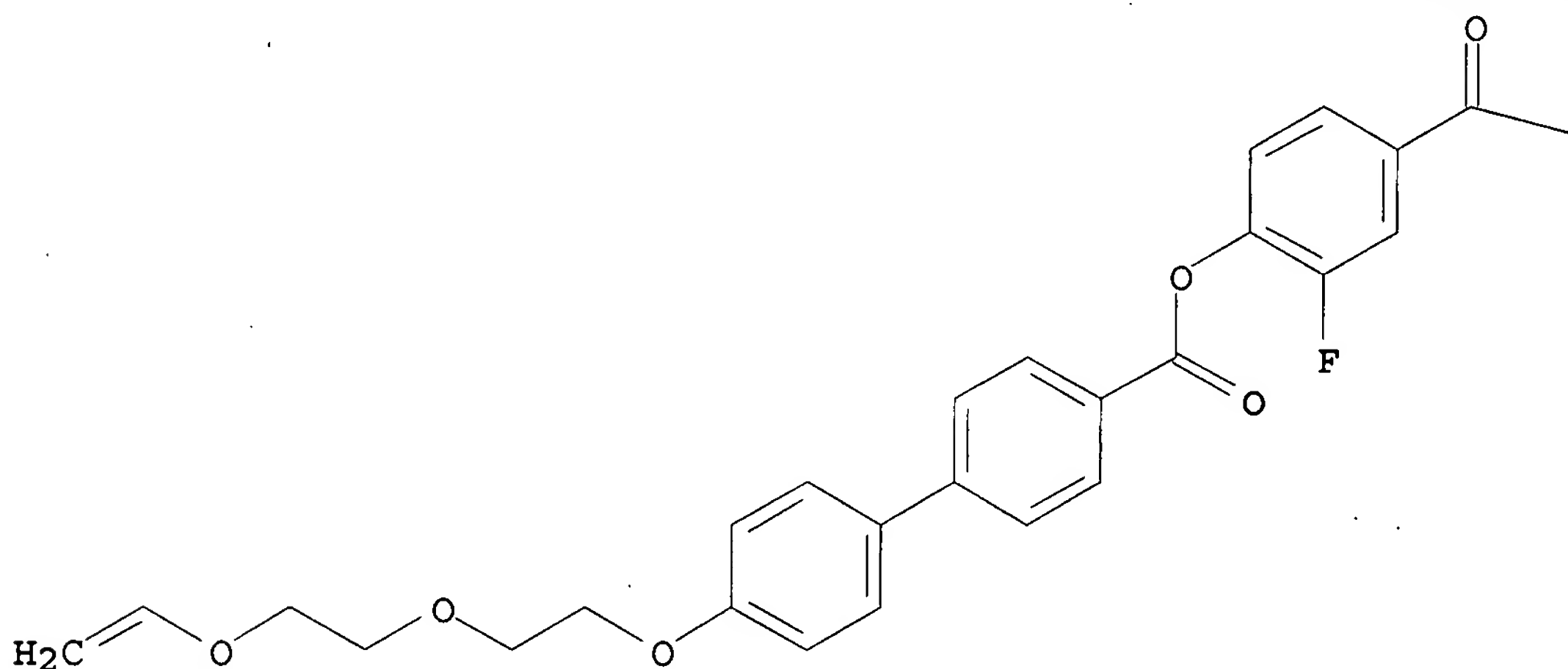


RN 173355-63-0 HCAPLUS

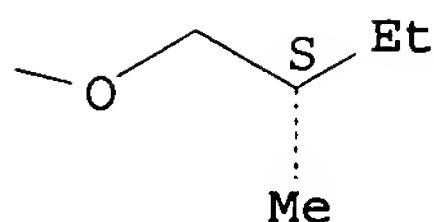
CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[2-(ethenyloxy)ethoxy]ethoxy]-, 2-fluoro-4-[(2-methylbutoxy)carbonyl]phenyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

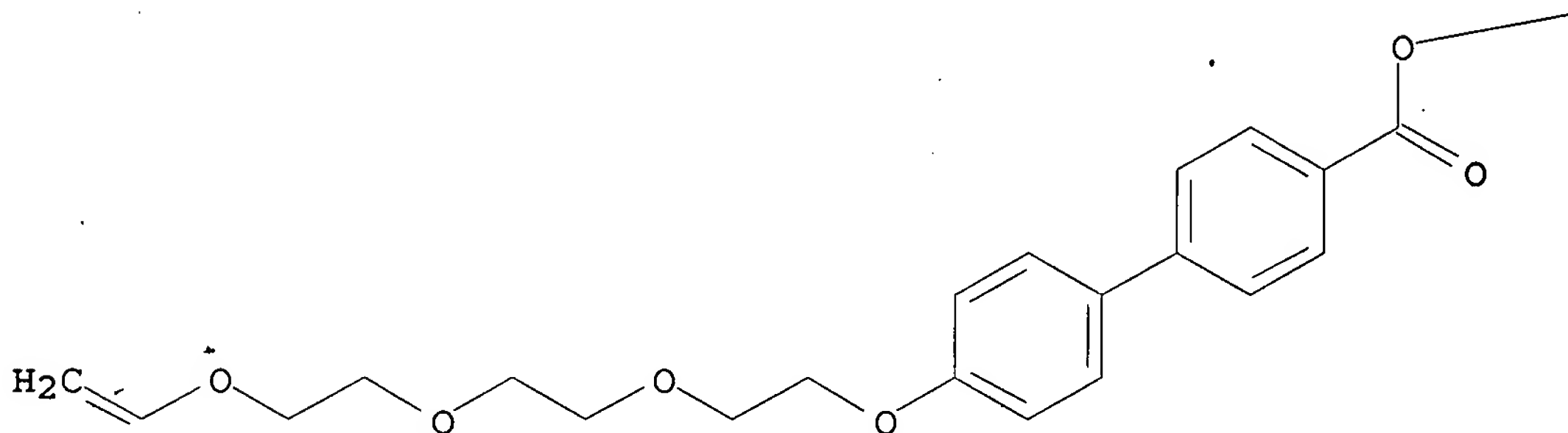


RN 173355-64-1 HCAPLUS

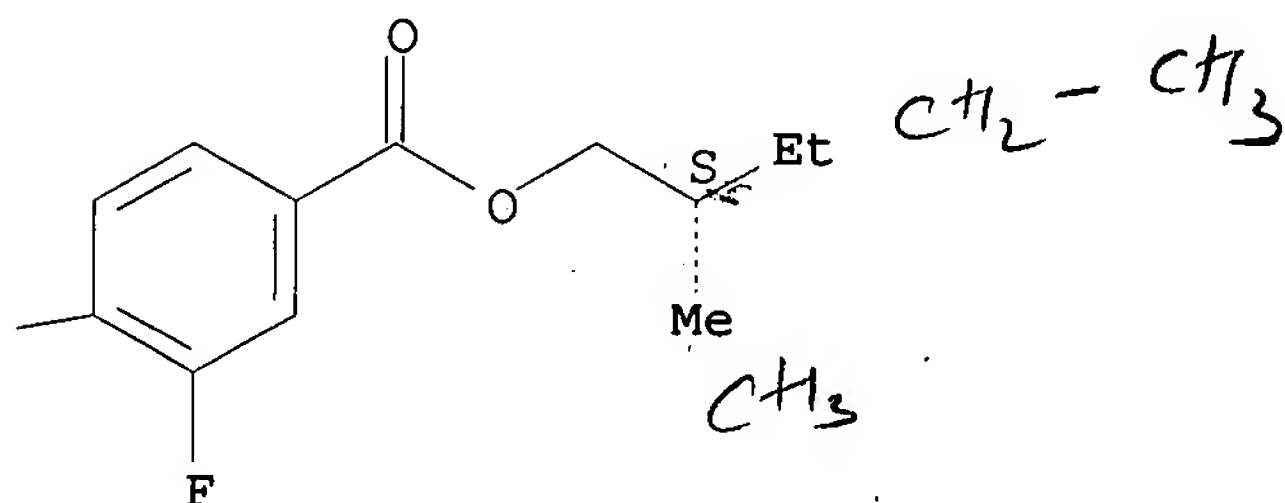
CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[2-[2-(ethenyloxy)ethoxy]ethoxy]ethoxy]-, 2-fluoro-4-[(2-methylbutoxy)carbonyl]phenyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 36-2 (Physical Properties of Synthetic High Polymers)  
Section cross-reference(s): 75

IT 26403-67-8D, hydrosilation products with chiral alkenyl derivs.  
49718-23-2D, hydrosilation products with chiral alkenyl derivs.  
144512-89-0D, hydrosilation products with Me H siloxanes  
144512-90-3D, hydrosilation products with Me H siloxanes  
144512-91-4D, hydrosilation products with Me H siloxanes  
144512-92-5D, hydrosilation products with Me H siloxanes



144512-93-6D, hydrosilation products with Me H siloxanes 144513-01-9  
 144513-02-0 144513-03-1 148186-51-0 148186-53-2 148186-55-4  
 148357-84-0D, hydrosilation products with Me H siloxanes  
 148357-85-1D, hydrosilation products with Me H siloxanes  
 148357-86-2D, hydrosilation products with Me H siloxanes  
 152066-27-8D, hydrosilation products with Me H siloxanes  
 152066-28-9D, hydrosilation products with Me H siloxanes  
 152066-29-0D, hydrosilation products with Me H siloxanes  
 157789-34-9D, hydrosilation products with Me H siloxanes  
 157903-53-2D, hydrosilation products with Me H siloxanes  
 157903-54-3D, hydrosilation products with Me H siloxanes  
 163559-24-8D, hydrosilation products with Me H siloxanes  
 163559-25-9D, hydrosilation products with Me H siloxanes  
 163559-26-0D, hydrosilation products with Me H siloxanes  
 163559-28-2D, hydrosilation products with Me H siloxanes  
 163559-29-3D, hydrosilation products with Me H siloxanes  
 163559-30-6D, hydrosilation products with Me H siloxanes  
 173355-59-4D, hydrosilation products with Me H siloxanes  
 173355-60-7D, hydrosilation products with Me H siloxanes  
 173355-61-8D, hydrosilation products with Me H siloxanes  
 173355-62-9D, hydrosilation products with Me H siloxanes  
 173355-63-0D, hydrosilation products with Me H siloxanes  
 173355-64-1D, hydrosilation products with Me H siloxanes  
 (mol. design in relation to to thermal and phase transitions in  
 ferroelec. chiral smectic liquid-crystalline polysiloxanes and  
 polymethacrylates)

L11 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:39158 HCAPLUS

DOCUMENT NUMBER: 124:110672

TITLE: Binding of the Oxidized, Reduced, and Radical  
 Flavin Species to Chorismate Synthase. An  
 Investigation by Spectrophotometry, Fluorimetry,  
 and Electron Paramagnetic Resonance and Electron  
 Nuclear Double Resonance Spectroscopy

AUTHOR(S): Macheroux, Peter; Petersen, Jan; Bornemann,  
 Stephen; Lowe, David J.; Thorneley, Roger N. F.  
 CORPORATE SOURCE: Nitrogen Fixation Laboratory, John Innes Centre,  
 Norwich, NR4 7UH, UK

SOURCE: Biochemistry (1996), 35(5), 1643-52  
 CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Jan 1996

AB Chorismate synthase (EC 4.6.1.4) binds oxidized riboflavin-5'-  
 phosphate mononucleotide (FMN) with a KD of 30  $\mu$ M at 25°,  
 but in the presence of 5-enolpyruvylshikimate-3-phosphate (EPSP), the  
 KD decreases to .apprx.20 nM. Similar effects occur with the  
 substrate analog (6R)-6-fluoro-EPSP (KD = 36 nM) and chorismate (KD =  
 540 nM). Fluorescence of oxidized FMN is slightly quenched in the  
 presence of chorismate synthase. Addition of EPSP or the (6R)-6-fluoro  
 analog causes a shift of the fluorescence from 520 to 495 nm.  
 Chorismate causes no shift in, but a quenching of, the fluorescence  
 emission maximum. In the presence of EPSP, (6R)-6-fluoro-EPSP, or  
 chorismate, the neutral flavin semiquinone is generated. The ESR line  
 width of the flavin radical is indicative of a neutral flavin  
 semiquinone. Frozen solution electron nuclear double resonance (ENDOR)  
 of the radical with (6R)-6-fluoro-EPSP shows a number of proton ENDOR  
 line pairs. The largest splitting is assigned to a hyperfine coupling



to the Me group  $\beta$ -protons at position 8 of the isoalloxazine ring. The hyperfine-coupling (hFc) components have values of  $A_1 = 8.07$  MHz and  $A_{\text{dblvert.}} = 9.60$  MHz, giving  $A_{\text{iso}}$  of 8.58 MHz, consistent with a neutral semiquinone form. The isotropic hFc coupling of the 8-Me protons with (6R)-6-fluoro-EPSP decreases by about 0.5 MHz when chorismate is bound, indicating that the spin d. distribution within the isoalloxazine ring system depends critically on the nature of the ligand. The redox potential of FMN in the presence of chorismate synthase was 95 mV more pos. than that of free FMN (at pH 7.0), equivalent to a 1660-fold tighter binding of reduced FMN. The pH dependence of the redox potential of chorismate synthase-bound FMN exhibits a slope of -30 mV per pH unit between pH 6 and 9, indicating that the two-electron reduction of the flavin is associated with the uptake of one proton; this, and the UV-visible spectrum, is consistent with the reduced flavin being bound to chorismate synthase in its monoanionic form.

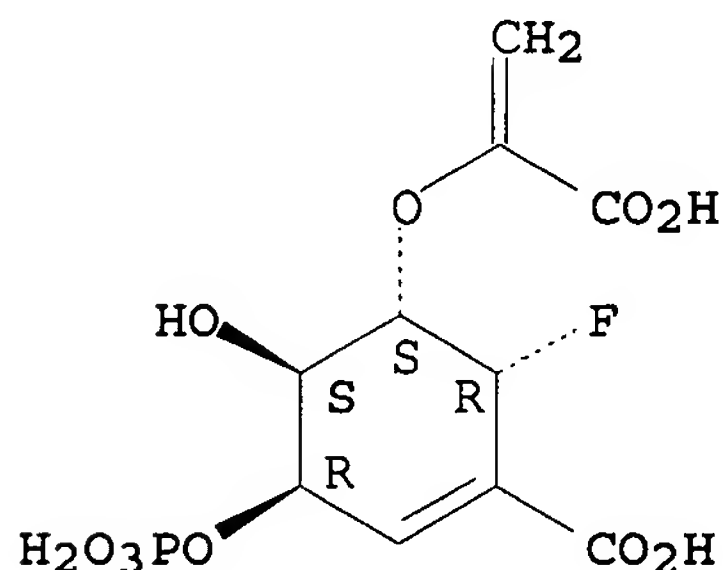
IT 137234-10-7

(binding of oxidized, reduced, and radical flavin species to chorismate synthase. an investigation by spectrophotometry, fluorimetry, and ESR and electron nuclear double resonance spectroscopy)

RN 137234-10-7 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 7-3 (Enzymes)

IT 146-17-8, FMN 617-12-9 9077-07-0, Chorismate Synthase  
137234-10-7

(binding of oxidized, reduced, and radical flavin species to chorismate synthase. an investigation by spectrophotometry, fluorimetry, and ESR and electron nuclear double resonance spectroscopy)

L11 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:857992 HCAPLUS

DOCUMENT NUMBER: 123:329336

TITLE: Escherichia coli chorismate synthase catalyzes the conversion of (6S)-6-fluoro-5-enolpyruvylshikimate-3-phosphate to 6-fluorochorismate. Implications for the enzyme mechanism and the antimicrobial action of (6S)-6-fluoroshikimate

AUTHOR(S): Bornemann, Stephen; Ramjee, Manoj K.; Balasubramanian, Shankar; Abell, Chris; Coggins, John R.; Lowe, David J.; Thorneley, Roger N. F.  
CORPORATE SOURCE: Nitrogen Fixation Lab., Univ. Sussex, Brighton, Sussex, BN1 9RQ, UK

SOURCE: Journal of Biological Chemistry (1995), 270(39), 22811-15  
 CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Oct 1995

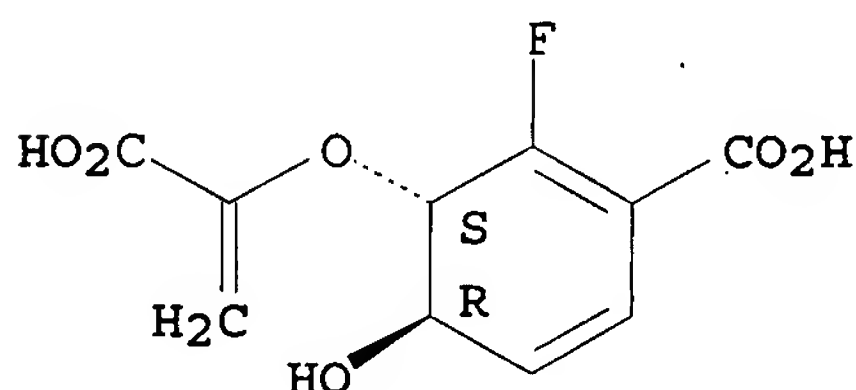
AB Chorismate synthase catalyzes the conversion of 5-enolpyruvylshikimate-3-phosphate to chorismate. It is the seventh enzyme of the shikimate pathway, which is responsible for the biosynthesis of aromatic metabolites from glucose. The chorismate synthase reaction involves a 1,4-elimination with unusual anti-stereochem. and requires a reduced flavin cofactor. The substrate analog (6S)-6-fluoro-5-enolpyruvylshikimate-3-phosphate is a competitive inhibitor of *Neurospora crassa* chorismate synthase (Balasubramanian, et al 1991). We have shown that this analog is converted to 6-fluorochorismate by *Escherichia coli* chorismate synthase at a rate 2 orders of magnitude slower than the normal substrate. The decreased rate of reaction is consistent with the destabilization of an allylic cationic intermediate. The formation of chorismate and 6-fluorochorismate involves a common protein-bound flavin intermediate although the fluoro substituent does influence the spectral characteristics of this intermediate. The fluoro substituent also decreased the rate of decay of the flavin intermediate by 280 times. These results are consistent with the antimicrobial activity of (6S)-6-fluoroshikimate not being mediated by the inhibition of chorismate synthase but by the inhibition of 4-aminobenzoic acid synthesis as previously proposed (Davies, et al 1994).

IT 170170-99-7  
 (chorismate synthase catalyzes the conversion of fluoroenolpyruvylshikimate phosphate to fluorochorismate: implications for the enzyme mechanism and antimicrobial action of fluoroshikimate)

RN 170170-99-7 HCAPLUS

CN 1,5-Cyclohexadiene-1-carboxylic acid, 3-[(1-carboxyethenyl)oxy]-2-fluoro-4-hydroxy-, (3S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

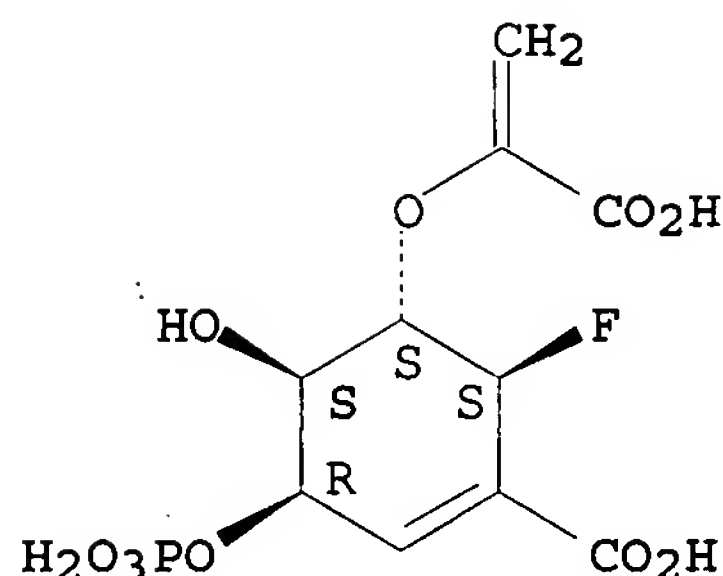


IT 137330-49-5  
 (chorismate synthase catalyzes the conversion of fluoroenolpyruvylshikimate phosphate to fluorochorismate: implications for the enzyme mechanism and antimicrobial action of fluoroshikimate)

RN 137330-49-5 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonoxy)-, (3R,4S,5S,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 1-5 (Pharmacology)  
Section cross-reference(s): 7

IT 170170-99-7  
(chorismate synthase catalyzes the conversion of  
fluoroenolpyruvylshikimate phosphate to fluorochorismate:  
implications for the enzyme mechanism and antimicrobial action of  
fluoroshikimate)

IT 137330-49-5  
(chorismate synthase catalyzes the conversion of  
fluoroenolpyruvylshikimate phosphate to fluorochorismate:  
implications for the enzyme mechanism and antimicrobial action of  
fluoroshikimate)

L11 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:781104 HCAPLUS

DOCUMENT NUMBER: 123:229078

TITLE: Molecular engineering of liquid-crystalline  
polymers by 'living' polymerization. Part 31.  
Synthesis and 'living' cationic polymerization of  
(2R,3S)-2-fluoro-3-methylpentyl  
3-fluoro-4'-( $\omega$ -vinylalkoxy)biphenyl-4-  
carboxylate with undecanyl and octyl alkyl groups

AUTHOR(S): Percec, Virgil; Oda, Hiroji

CORPORATE SOURCE: Dep. Macromol. Sci., Case West. Reserve Univ.,  
Cleveland, OH, 44106-7202, USA

SOURCE: Journal of Materials Chemistry (1995), 5(8),  
1125-36.

CODEN: JMACEP; ISSN: 0959-9428

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 08 Sep 1995

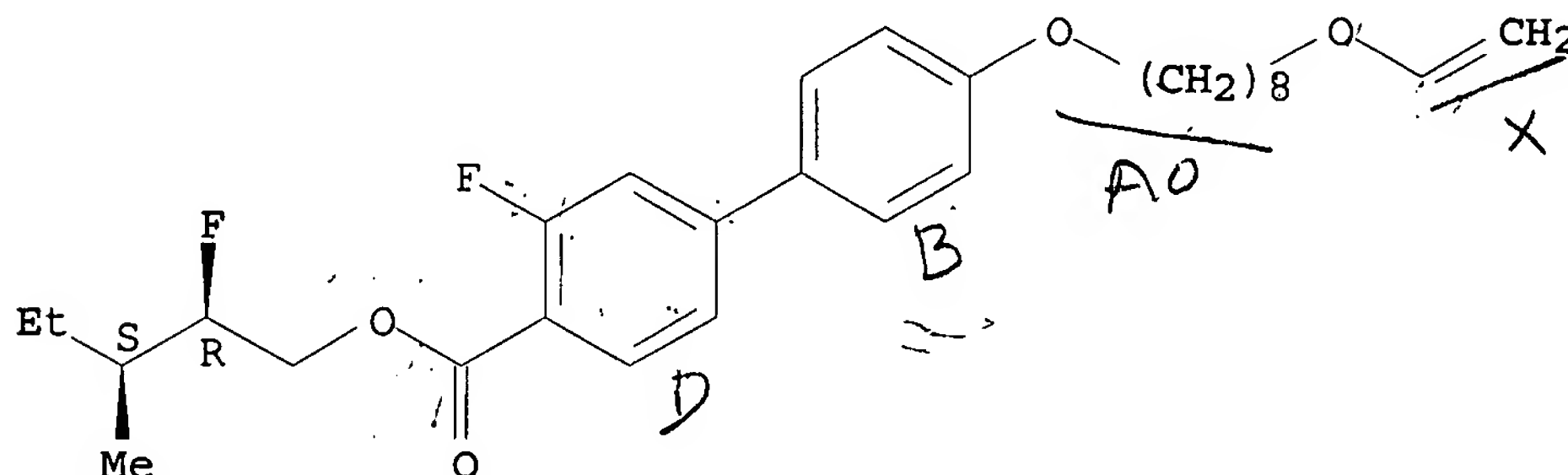
AB The synthesis and living cationic polymerization of (2R,3S)-2-fluoro-3-methylpentyl 3-fluoro-4'-(11-vinylundecanyloxy)biphenyl-4-carboxylate (I) and (2R,3S)-2-fluoro-3-methylpentyl 3-fluoro-4'-(8-vinyl-octyloxy)biphenyl-4-carboxylate (II) are described. PolyIs and polyIIs with degrees of polymerization (DP) from 4.5 to 16.7 and polydispersities 1.22 were synthesized and characterized by differential scanning calorimetry (DSC) and thermal optical polarized microscopy. Over the entire range of mol. wts. formed, polyIs and polyIIs exhibit enantiotropic SA and SC\* phases. In addition, polyIs with DP 8.7 and polyIIs with DP 10.0 exhibit an unidentified SX mesophase. All polyIs are non-crystallizable, while polyIIs with DP 7.2 exhibit a crystalline phase. I-II copolymers (X:Y) (where X:Y represents the molar ratio of monomer I to monomer II) with DP of ca. 12 and polydispersities lower than 1.22 are also synthesized and characterized. Both the SA and Sc\* mesophases of these copolymers exhibit continuous dependences over the entire range of copolymer

composition  
 IT 168100-33-2P 168100-34-3P 168100-35-4P  
 (preparation and characterization of)  
 RN 168100-33-2 HCAPLUS  
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[8-(ethenyloxy)octyl]oxy]-2-fluoro-, 2-fluoro-3-methylpentyl ester, [R-(R\*,S\*)]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 168100-31-0  
 CMF C29 H38 F2 O4

Absolute stereochemistry.

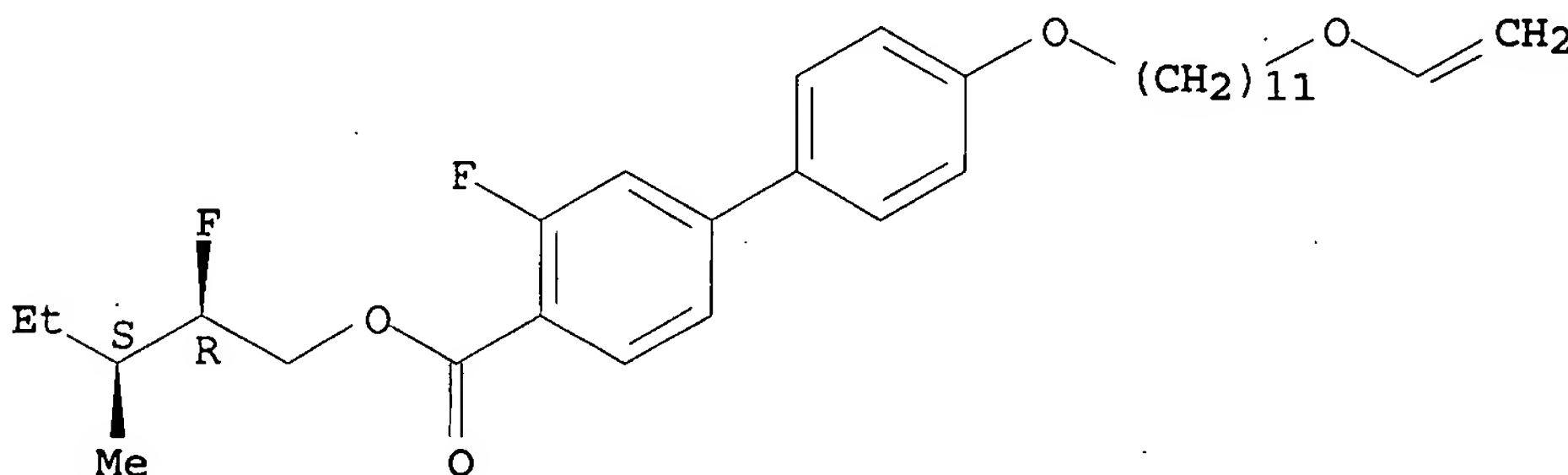


RN 168100-34-3 HCAPLUS  
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[11-(ethenyloxy)undecyl]oxy]-2-fluoro-, 2-fluoro-3-methylpentyl ester, [R-(R\*,S\*)]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 168100-32-1  
 CMF C32 H44 F2 O4

Absolute stereochemistry.



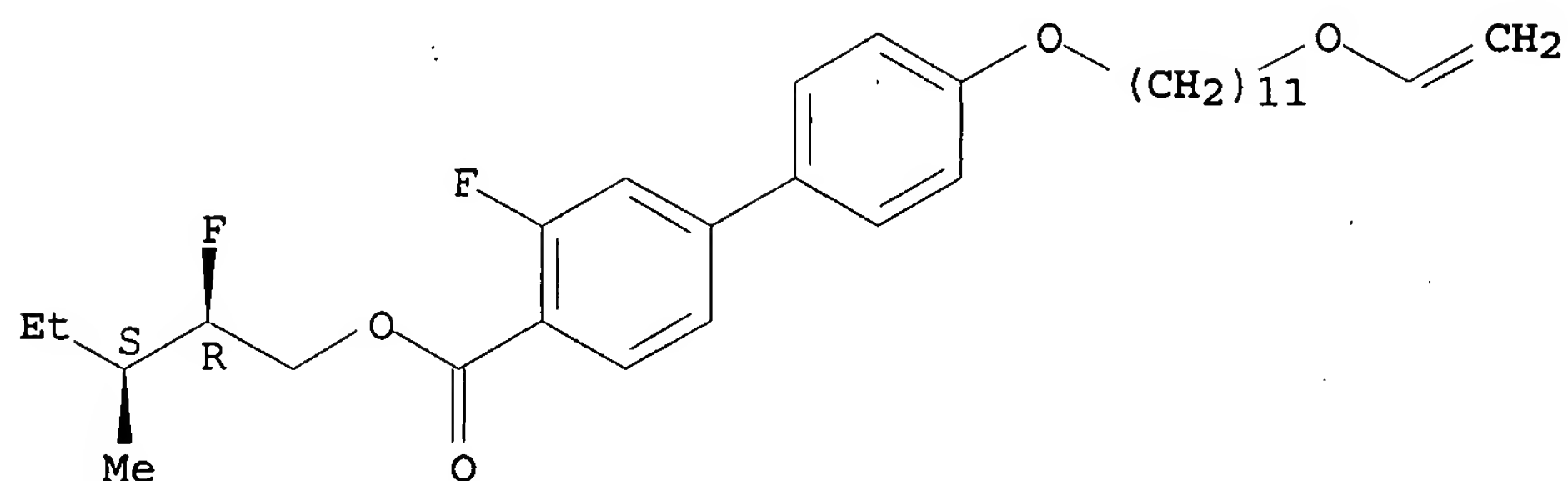
RN 168100-35-4 HCAPLUS  
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[8-(ethenyloxy)octyl]oxy]-2-fluoro-, 2-fluoro-3-methylpentyl ester, [R-(R\*,S\*)]-, polymer with [R-(R\*,S\*)]-2-fluoro-3-methylpentyl 4'-[[11-(ethenyloxy)undecyl]oxy]-2-fluoro[1,1'-biphenyl]-4-carboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 168100-32-1

CMF C32 H44 F2 O4

Absolute stereochemistry.

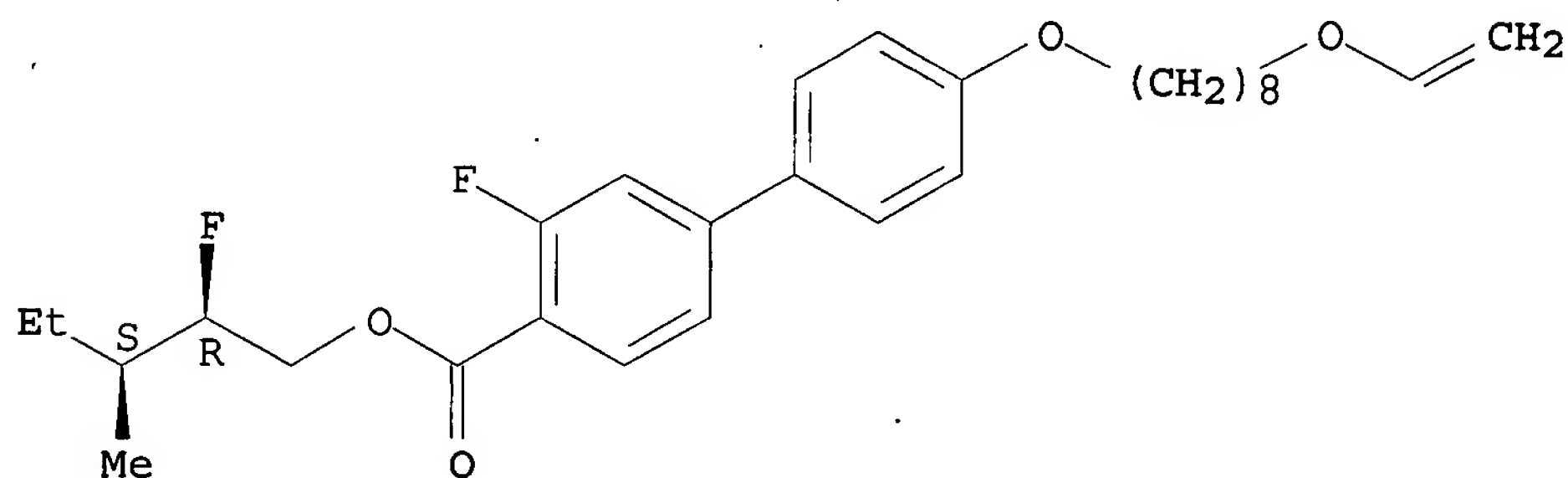


CM 2

CRN 168100-31-0

CMF C29 H38 F2 O4

Absolute stereochemistry.



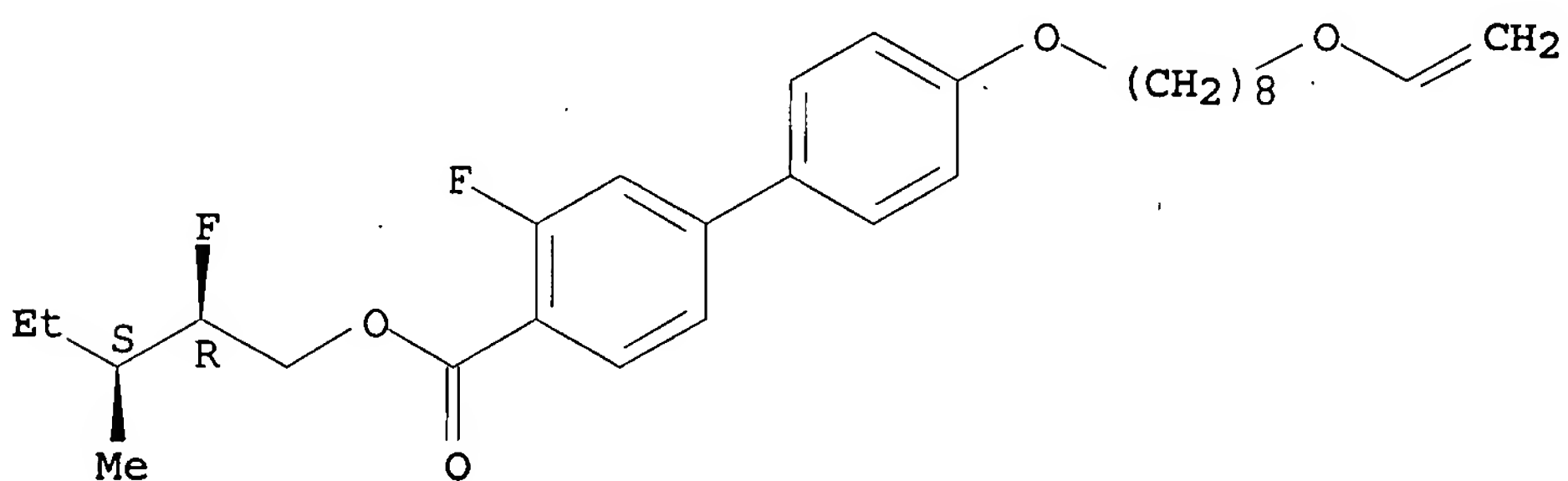
IT 168100-31-0P 168100-32-1P

(preparation and polymerization of)

RN 168100-31-0 HCAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[8-(ethenyloxy)octyl]oxy]-3-fluoro-, 2-fluoro-3-methylpentyl ester, [2R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

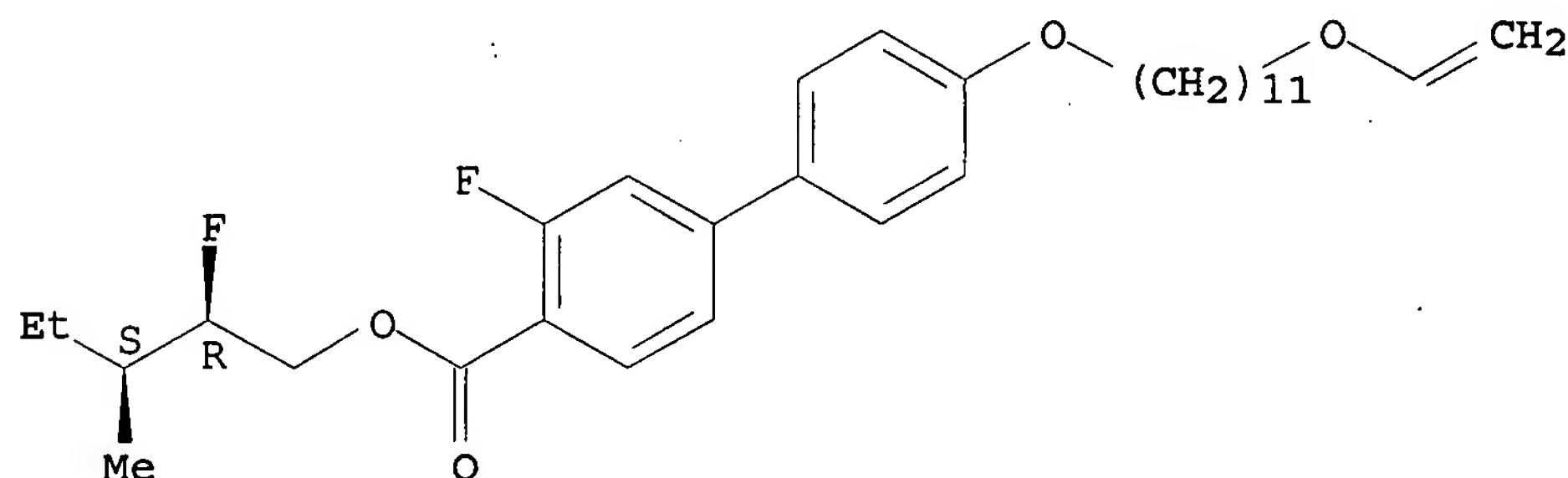


RN 168100-32-1 HCAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[11-(ethenyloxy)undecyl]oxy]-3-fluoro-, 2-fluoro-3-methylpentyl ester, [2R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

NAME)

Absolute stereochemistry.



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 75

IT 168100-33-2P 168100-34-3P 168100-35-4P  
(preparation and characterization of)IT 168100-31-0P 168100-32-1P  
(preparation and polymerization of)

L11. ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:468715 HCAPLUS

DOCUMENT NUMBER: 122:205175

TITLE: Preparation of  $\beta$ -heteroaryl- $\beta$ -oxopropionitriles as insecticides and ectoparasitocides.

INVENTOR(S): Plant, Andrew; Harder, Achim; Erdelen, Christoph

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 42 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

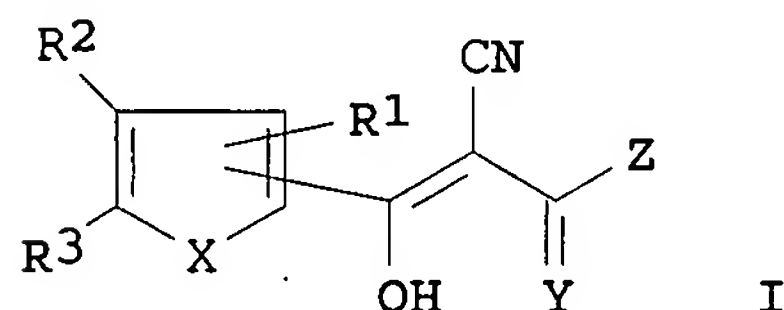
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4330105	A1	19950309	DE 1993-4330105	19930906

PRIORITY APPLN. INFO.: DE 1993-4330105 19930906

OTHER SOURCE(S): MARPAT 122:205175

ED Entered STN: 06 Apr 1995

GI



AB The title compds. I [R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>=H, halo, CN, NO<sub>2</sub>, alkyl, heteroalkyl, heteroaryl, etc.; Z= (un)substituted (cyclo)alkyl, aryl, heteroalkyl, heteroaryl, etc.; X, Y= O or S] are prepared as insecticides and

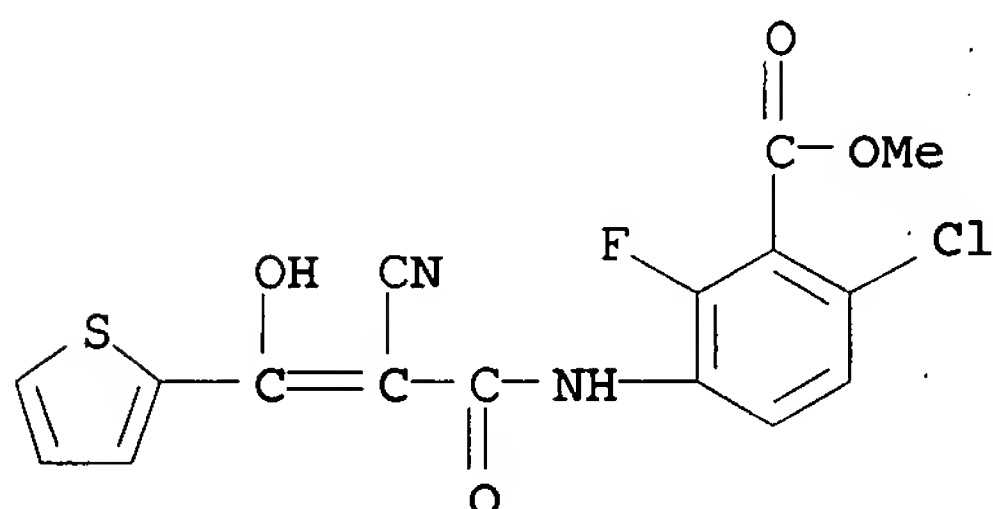
ectoparasitocides. I (R1=3-H, R2=R3=H, X=S, Y=O, Z=NHC6H4SCF3-4), administered orally, at 10 mg/kg, controlled *Haemonchus contortus*, in sheep.

IT 162016-96-8P 162017-08-5P

(preparation as insecticide and ectoparasiticide)

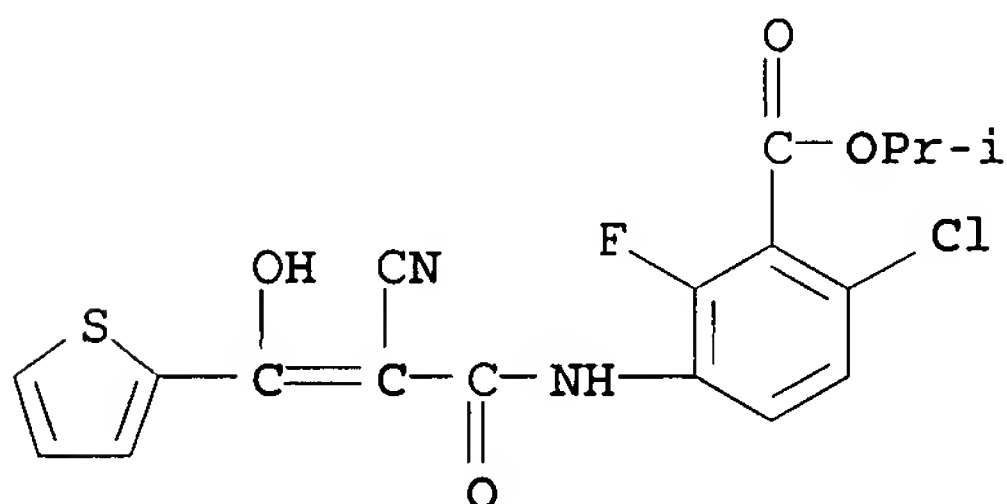
RN 162016-96-8 HCAPLUS

CN Benzoic acid, 6-chloro-3-[[2-cyano-3-hydroxy-1-oxo-3-(2-thienyl)-2-propenyl]amino]-2-fluoro-, methyl ester (9CI) (CA INDEX NAME)



RN 162017-08-5 HCAPLUS

CN Benzoic acid, 6-chloro-3-[[2-cyano-3-hydroxy-1-oxo-3-(2-thienyl)-2-propenyl]amino]-2-fluoro-, 1-methylethyl ester (9CI) (CA INDEX NAME)



IC ICM A01N043-06

ICS A01N043-40; A01N043-74; C07D307-54; C07D333-24; C07D401-12

ICA C02F001-50; A01J003-00; A61K031-34; A61K031-38

ICI C07D401-12, C07D333-24, C07D213-57

CC 1-5 (Pharmacology)

Section cross-reference(s): 5, 27

IT	162016-40-2P	162016-41-3P	162016-42-4P	162016-43-5P
	162016-44-6P	162016-45-7P	162016-46-8P	162016-47-9P
	162016-48-0P	162016-49-1P	162016-50-4P	162016-51-5P
	162016-52-6P	162016-53-7P	162016-54-8P	162016-55-9P
	162016-56-0P	162016-57-1P	162016-58-2P	162016-59-3P
	162016-60-6P	162016-61-7P	162016-62-8P	162016-63-9P
	162016-64-0P	162016-65-1P	162016-66-2P	162016-67-3P
	162016-68-4P	162016-69-5P	162016-70-8P	162016-71-9P
	162016-72-0P	162016-73-1P	162016-74-2P	162016-75-3P
	162016-76-4P	162016-77-5P	162016-78-6P	162016-79-7P
	162016-80-0P	162016-81-1P	162016-82-2P	162016-83-3P
	162016-84-4P	162016-85-5P	162016-86-6P	162016-87-7P
	162016-88-8P	162016-89-9P	162016-90-2P	162016-91-3P
	162016-92-4P	162016-93-5P	162016-94-6P	162016-95-7P
	<b>162016-96-8P</b>	162016-97-9P	162016-98-0P	162016-99-1P
	162017-00-7P	162017-01-8P	162017-02-9P	162017-03-0P
	162017-04-1P	162017-05-2P	162017-06-3P	162017-07-4P



162017-08-5P	162017-09-6P	162017-10-9P	162017-11-0P
162017-12-1P	162017-13-2P	162017-14-3P	162017-15-4P
162017-16-5P	162017-17-6P	162017-18-7P	162017-19-8P
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162017-28-9P	162017-29-0P	162017-30-3P	162017-31-4P
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162017-48-3P	162017-49-4P	162017-50-7P	162017-51-8P
162017-52-9P	162017-53-0P	162017-54-1P	162017-55-2P
162017-56-3P	162017-57-4P	162017-58-5P	162017-59-6P
162017-60-9P	162017-61-0P	162017-62-1P	162017-63-2P
162017-64-3P	162017-65-4P	162017-66-5P	162017-67-6P
162017-68-7P	162017-69-8P	162017-70-1P	162017-71-2P
162017-72-3P	162017-73-4P	162017-74-5P	162017-75-6P
162017-76-7P	162017-77-8P	162017-78-9P	162017-79-0P
162017-80-3P	162017-81-4P	162017-82-5P	162017-83-6P
162017-84-7P	162017-85-8P	162017-86-9P	162017-87-0P

(preparation as insecticide and ectoparasiticide)

L11 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:490275 HCAPLUS

DOCUMENT NUMBER: 117:90275

TITLE: Preparation of pyrazolylmethoxyacrylates as agrochemical fungicides

INVENTOR(S): Oda, Masatsugu; Shike, Toyohiko; Miura, Yumiko; Kikutake, Kazuhiko; Sekine, Mana

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

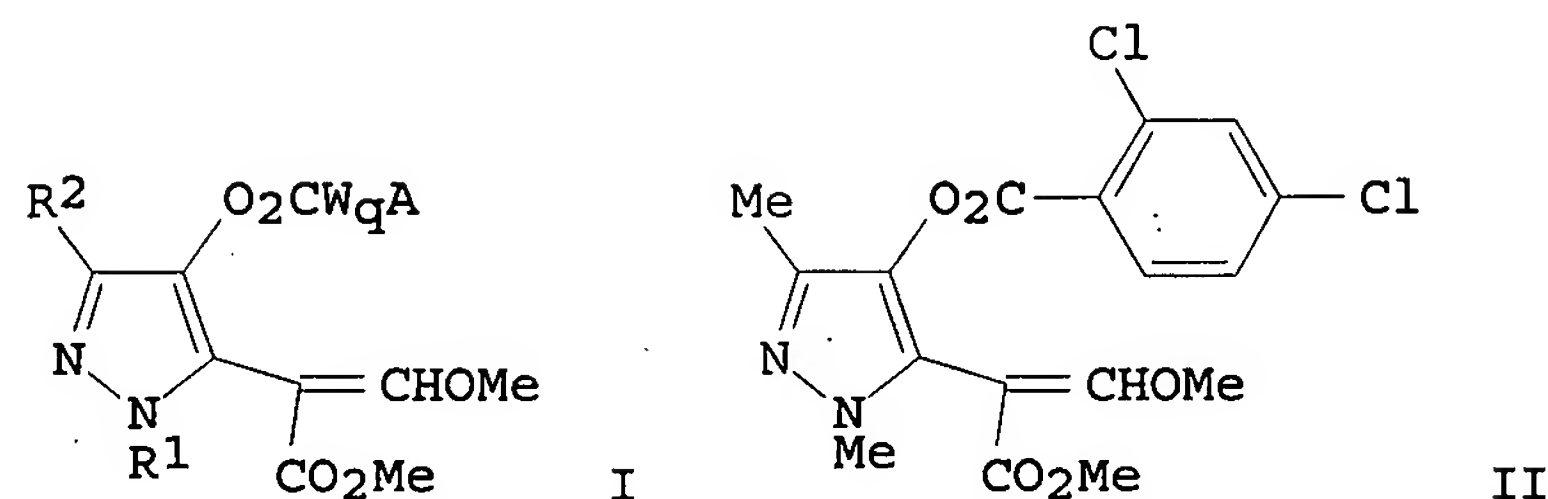
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 483851	A1	19920506	EP 1991-118624	19911031
EP 483851	B1	19960313		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL				
JP 05004969	A	19930114	JP 1991-267885	19911016
US 5128350	A	19920707	US 1991-780303	19911022
KR 183031	B1	19990501	KR 1991-19033	19911029
CA 2054587	A1	19920501	CA 1991-2054587	19911031
BR 9104748	A	19920616	BR 1991-4748	19911031
AT 135347	T	19960315	AT 1991-118624	19911031
ES 2087206	T3	19960716	ES 1991-118624	19911031
PRIORITY APPLN. INFO.:			JP 1990-294843	A 19901031
			JP 1991-66701	A 19910329

OTHER SOURCE(S): MARPAT 117:90275

ED Entered STN: 05 Sep 1992

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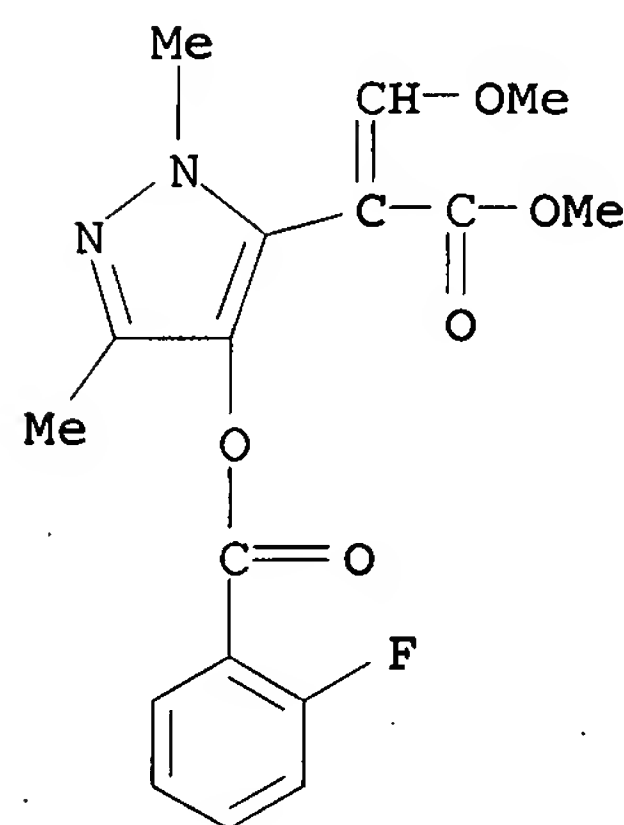
AB Title compds. [I; R<sub>1</sub>, R<sub>2</sub> = H, alkyl; W = (alkyl)alkylene, (alkyl)alkenylene, alkynylene, O, S, NH; q = 0, 1; A = (substituted) cycloalkyl, aryl, heteroaryl] were prepared. Thus, Me (E)-2-(4-benzyloxy-1,3-dimethylpyrazol-5-yl)-3-methoxyacrylate was hydrogenolyzed over Pd/C and the product was acylated with 2,4-dichlorobenzoyl chloride in EtOAc containing Et<sub>3</sub>N to give title compound II. II as a 200-ppm spray gave 100% control of Erysiphe graminis on wheat.

IT 142652-29-7P 142652-61-7P 142652-62-8P  
 142652-63-9P 142652-64-0P 142652-67-3P  
 142652-70-8P 142652-71-9P 142652-75-3P  
 142652-87-7P

(preparation of, as agrochem. fungicide)

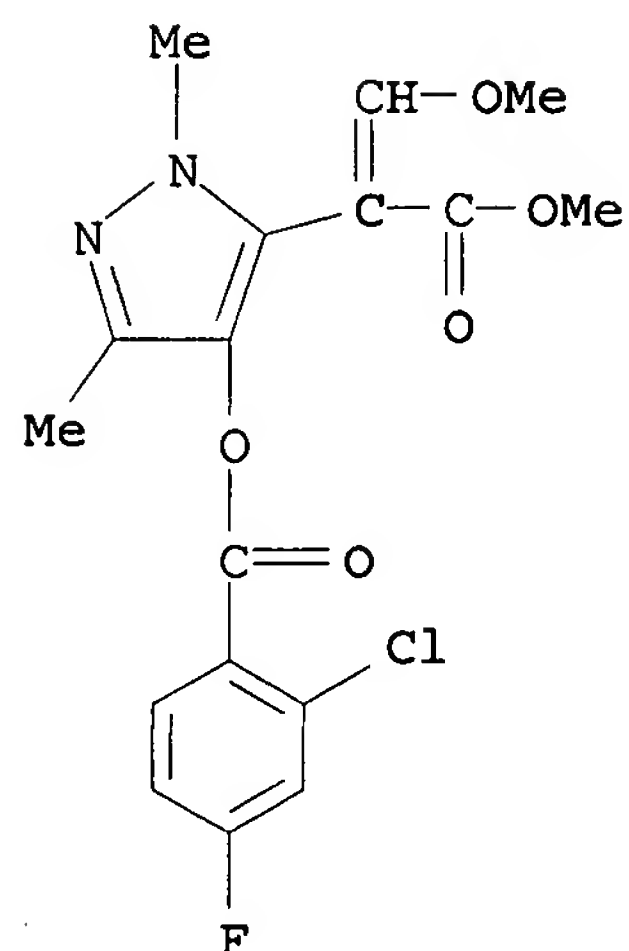
RN 142652-29-7 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(2-fluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



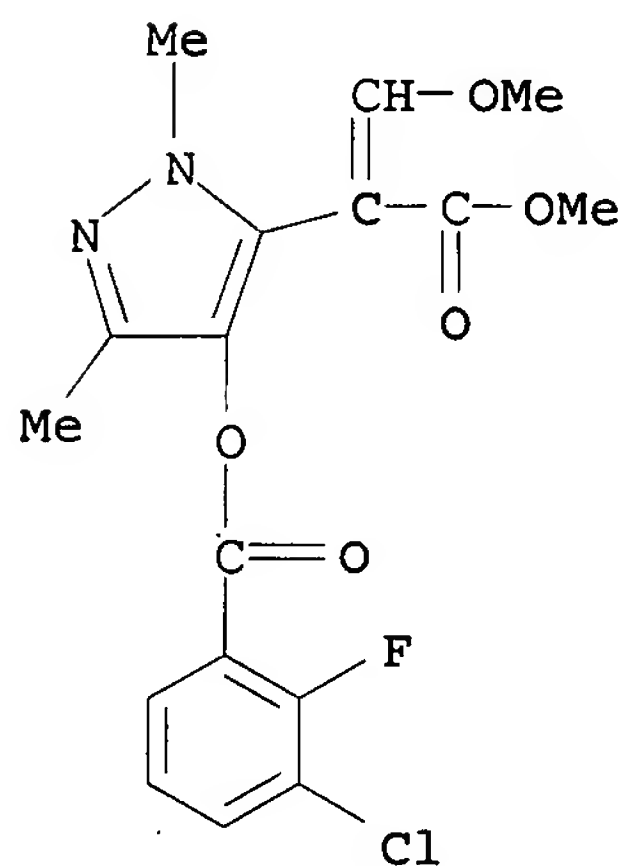
RN 142652-61-7 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(2-chloro-4-fluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



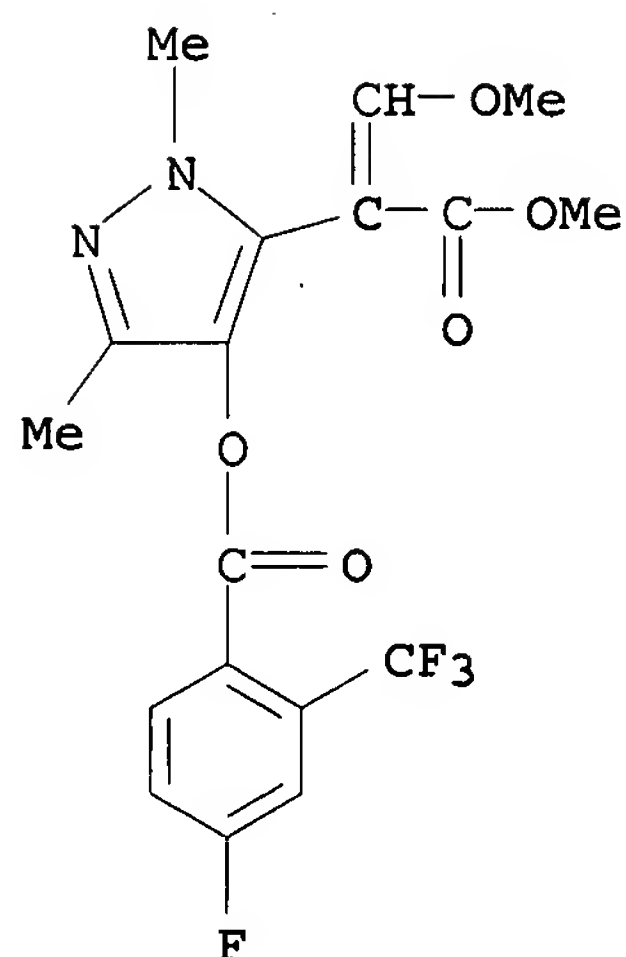
RN 142652-62-8 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(3-chloro-2-fluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



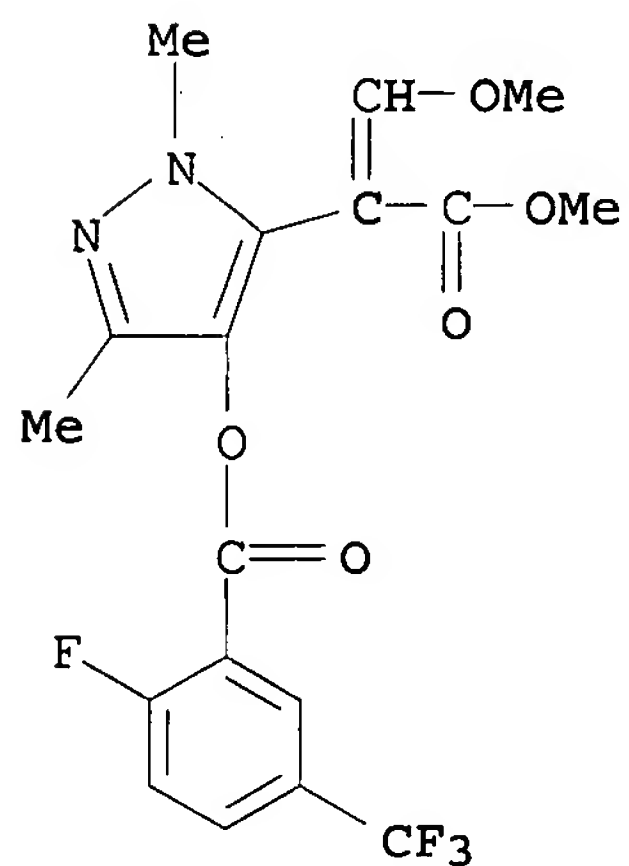
RN 142652-63-9 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[[4-fluoro-2-(trifluoromethyl)benzoyl]oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



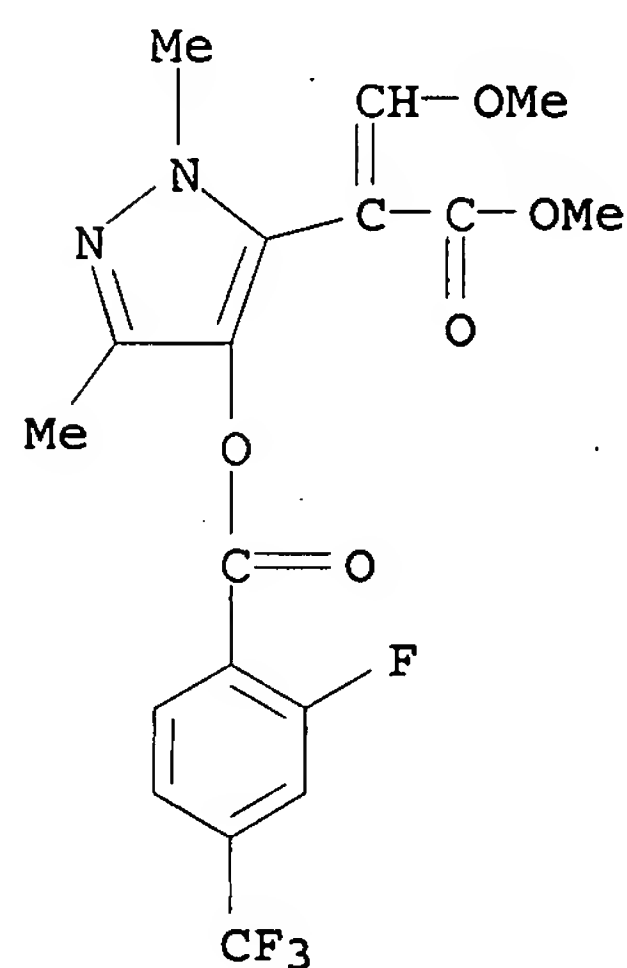
RN 142652-64-0 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[[2-fluoro-5-(trifluoromethyl)benzoyl]oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



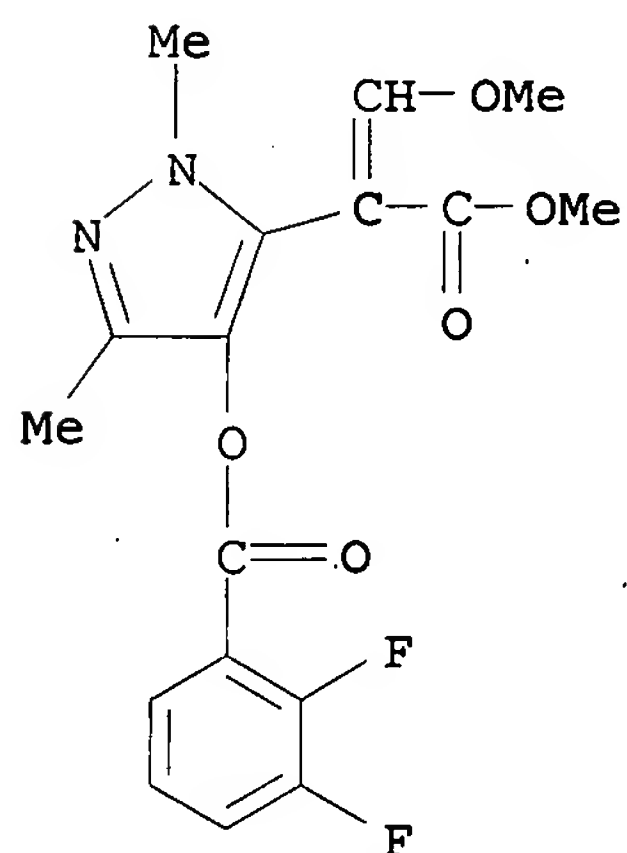
RN 142652-67-3 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[[2-fluoro-4-(trifluoromethyl)benzoyl]oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



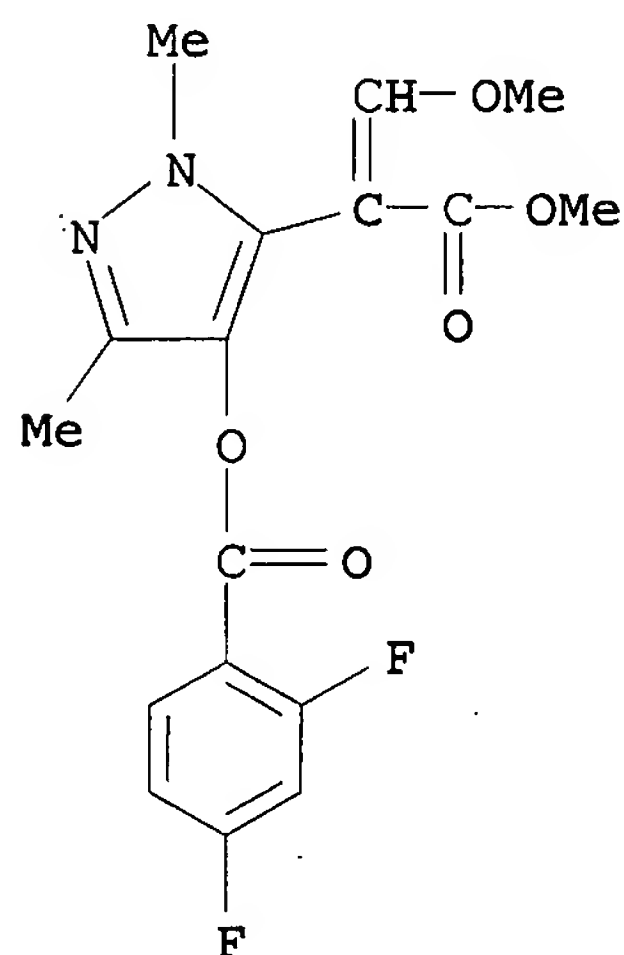
RN 142652-70-8 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(2,3-difluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



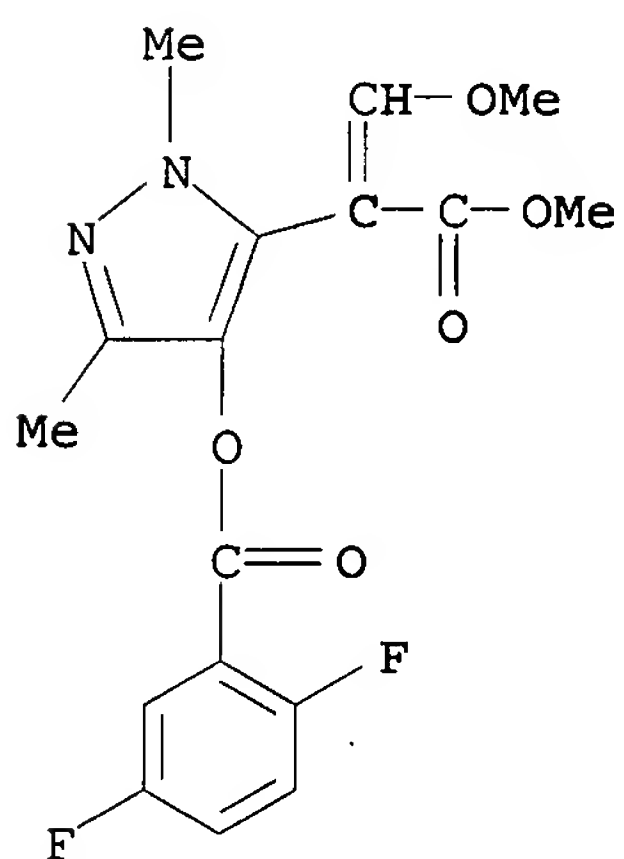
RN 142652-71-9 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(2,4-difluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



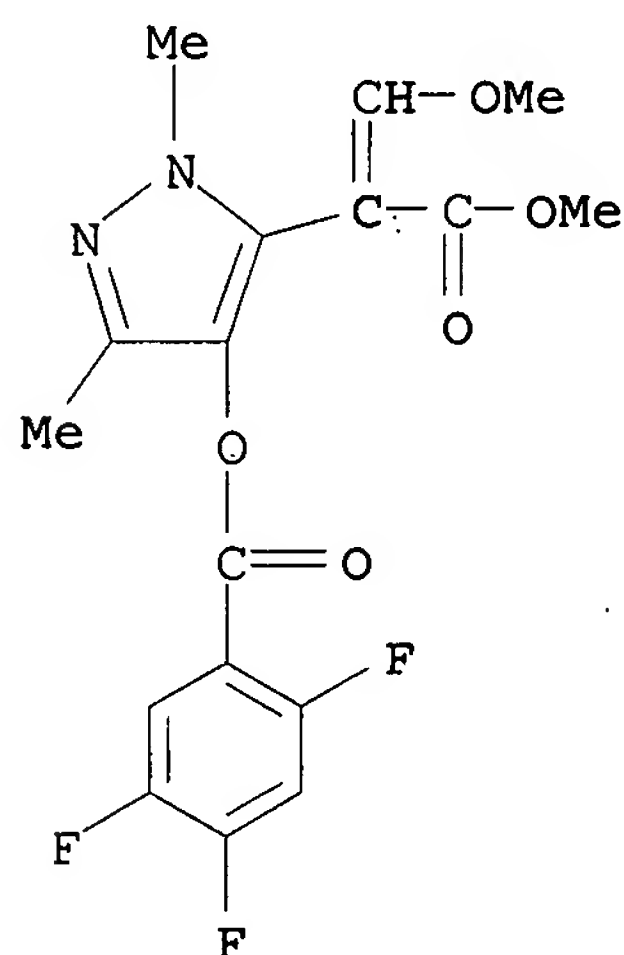
RN 142652-75-3 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, 4-[(2,5-difluorobenzoyl)oxy]-α-(methoxymethylene)-1,3-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



RN 142652-87-7 HCAPLUS

CN 1H-Pyrazole-5-acetic acid, α-(methoxymethylene)-1,3-dimethyl-4-[(2,4,5-trifluorobenzoyl)oxy]-, methyl ester (9CI) (CA INDEX NAME)



IC ICM C07D231-18  
 ICS A01N043-56; C07D409-12; C07D417-12; C07D405-12; C07D401-12  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 5  
 IT 142652-28-6P 142652-29-7P 142652-30-0P 142652-31-1P  
 142652-32-2P 142652-33-3P 142652-34-4P 142652-35-5P  
 142652-36-6P 142652-37-7P 142652-38-8P 142652-39-9P  
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 142676-16-2P

(preparation of, as agrochem. fungicide)

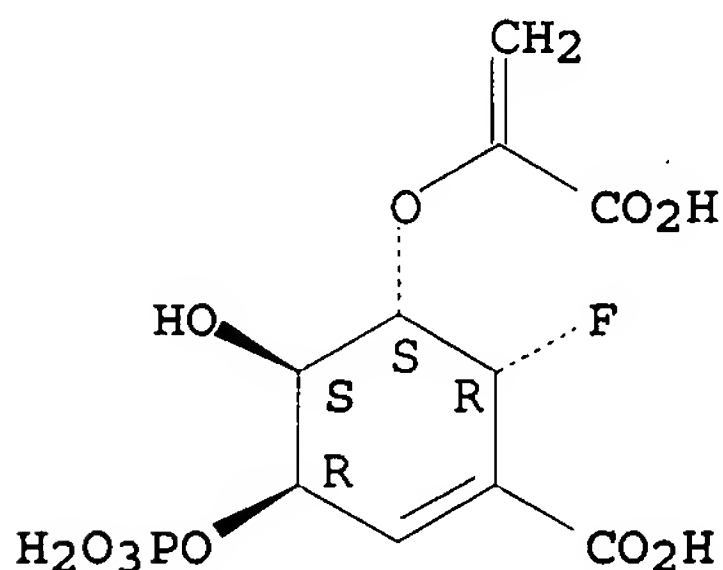
L11 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1992:168875 HCAPLUS  
 DOCUMENT NUMBER: 116:168875  
 TITLE: Reaction of (6R)-6-fluoroEPSP with recombinant  
 Escherichia coli chorismate synthase generates a  
 stable flavin mononucleotide semiquinone radical  
 AUTHOR(S): Ramjee, Manoj N.; Balasubramanian, Shankar; Abell,  
 Chris; Coggins, John R.; Davies, Gareth M.;  
 Hawkes, Timothy R.; Lowe, David J.; Thorneley,  
 Roger N. F.  
 CORPORATE SOURCE: Inst. Plant Sci. Res., Univ. Sussex,  
 Brighton/Sussex, BN1 9RQ, UK  
 SOURCE: Journal of the American Chemical Society (1992),  
 114(8), 3151-3  
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 03 May 1992  
 AB Chorismate synthase (EC 4.6.1.4) catalyzes the conversion of 5-enolpyruvylshikimate 3-phosphate (EPSP) to chorismate. The enzyme requires a reduced FMN cofactor (FMNH<sub>2</sub>) for activity. (6R)-6-FluoroEPSP is a competitive inhibitor ( $K_i = 3 \mu\text{M}$ ) of the *Neurospora crassa* enzyme. With *Escherichia coli* chorismate synthase, (6R)-6-fluoroEPSP induced a slow ( $t_{1/2} \approx 10\text{s}$ ), 1-electron oxidation of the enzyme-bound FMNH<sub>2</sub> to yield a stable, N-5 flavin radical (FMNSQ). This was identified by its characteristic UV/visible and EPR spectra which also indicated a mixture of neutral and anionic forms of FMNSQ at pH 7. The failure of excess Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> to reduce the FMNHSQ back to FMNH<sub>2</sub> suggests an unusually low mid-point potential ( $E_m < -550 \text{ mV}$ ) for the enzyme-FMNSQ-(6R)-6-fluoroEPSP complex. The EPR spectrum and its spin integration provided no evidence for another radical derived from the (6R)-6-fluoroEPSP or an aromatic side-chain on the protein.

IT 137234-10-7  
 (reaction of, with chorismate synthase of *Escherichia coli*, FMN semiquinone as intermediate in)

RN 137234-10-7 HCAPLUS  
 CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 7-4 (Enzymes)  
 IT 137234-10-7  
 (reaction of, with chorismate synthase of *Escherichia coli*, FMN semiquinone as intermediate in)

L11 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:674335 HCAPLUS  
 DOCUMENT NUMBER: 115:274335  
 TITLE: Inhibition of chorismate synthase by (6R)- and (6S)-6-fluoro-5-enolpyruvylshikimate 3-phosphate  
 AUTHOR(S): Balasubramanian, Shankar; Davies, Gareth M.; Coggins, John R.; Abell, Chris  
 CORPORATE SOURCE: Univ. Chem. Lab., Cambridge, CB2 1EW, UK  
 SOURCE: Journal of the American Chemical Society (1991), 113(23), 8945-6  
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 27 Dec 1991  
 AB Chorismate synthase (I) catalyzes a reaction that involves the 1,4-elimination of phosphate and loss of the C-6 pro-R H atom in the

conversion of 5-enolpyruvylshikimate 3-phosphate (EPSP) to chorismate. 6-FluoroEPSPs were synthesized enzymically from the corresponding 6-fluoroshikimates and their interactions with *Neurospora crassa* I were studied. (6R)- And (6S)-6-fluoroEPSP were competitive inhibitors of I with  $K_i$  values of 3.0 and 0.2  $\mu$ M, resp.

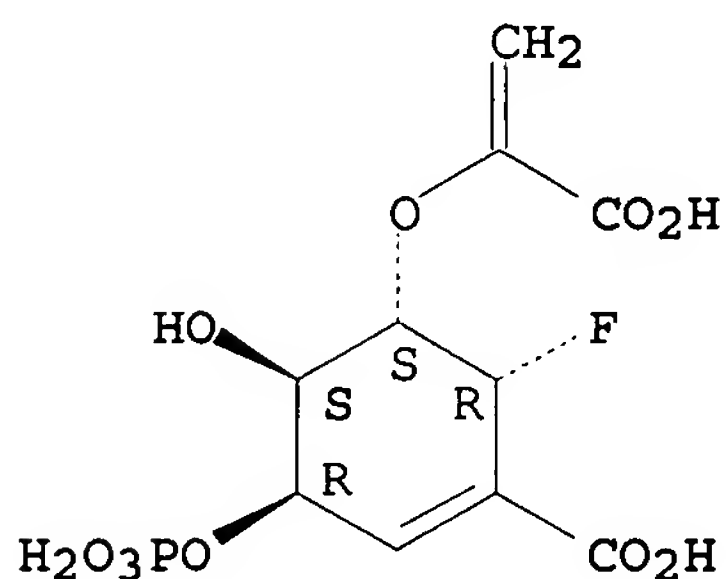
IT 137234-10-7P 137330-49-5P

(preparation and kinetics of chorismate synthase inhibition by)

RN 137234-10-7 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6R)- (9CI) (CA INDEX NAME)

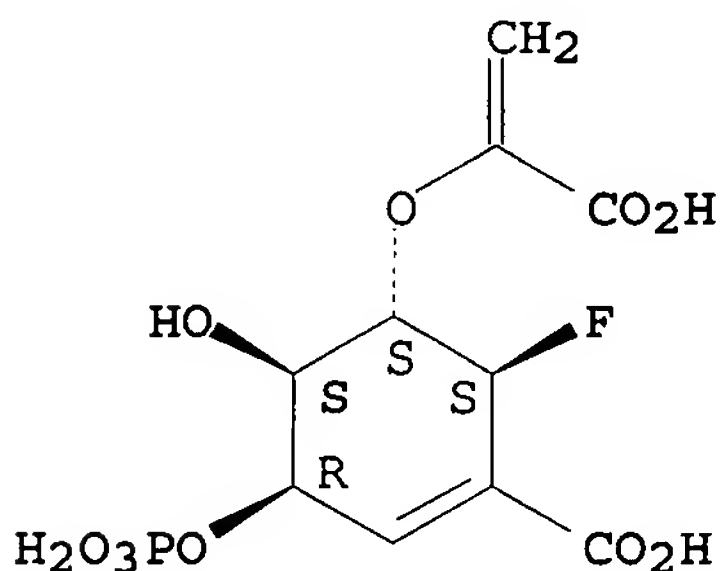
Absolute stereochemistry.



RN 137330-49-5 HCAPLUS

CN 1-Cyclohexene-1-carboxylic acid, 5-[(1-carboxyethenyl)oxy]-6-fluoro-4-hydroxy-3-(phosphonooxy)-, (3R,4S,5S,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 7-3 (Enzymes)

IT 137234-10-7P 137330-49-5P

(preparation and kinetics of chorismate synthase inhibition by)

L11 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:574003 HCAPLUS

DOCUMENT NUMBER: 111:174003

TITLE: Preparation of 4-Quinolinone-3-carboxylates as medical bactericides

INVENTOR(S): Narita, Hirokazu; Todo, Yozo; Nitsuta, Jun; Takagi, Hiroyasu; Iino, Fumihiko; Myajima, Mikako; Fukuoka, Yoshikazu; Saikawa, Isamu

PATENT ASSIGNEE(S): Toyama Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

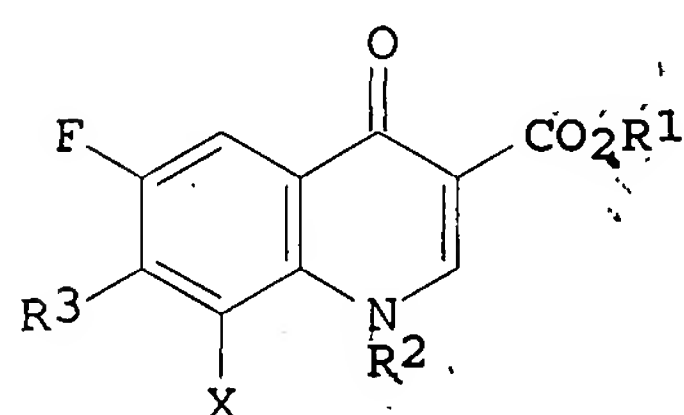
LANGUAGE: Japanese



FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01093573	A	19890412	JP 1987-251324	19871005
PRIORITY APPLN. INFO.:			JP 1987-251324	19871005

OTHER SOURCE(S): MARPAT 111:174003  
ED Entered STN: 10 Nov 1989  
GI



I

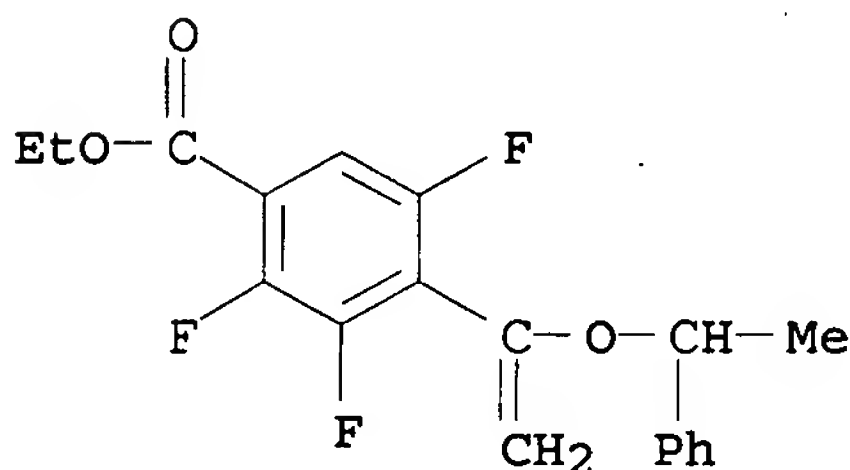
AB Title compds. I [R1 = H, protecting group; R2 = alkyl, alkenyl, cycloalkyl, aryl, the above groups may be substituted; R3 = [halo-, alkyl-, (protected) OH-, (protected) NH2-, (protected) CO2H-, or (protected) hydroxyalkyl-substituted) cycloalkyl; X = H, halo] are prepared for controlling gram pos. and neg. bacteria and antibiotic-resist bacteria. I (R1 = Et; R2 = cyclopropyl; R3 = 1-carboxycyclopropyl; X = H) (preparation given) was directly heated with flame to give 45.6% I (R1 = Et; R2 = R3 = cyclopropyl; X = H), which in EtOH was treated with N aqueous NaOH to afford 87.6% I (R1 = X = H; R2 = R3 = cyclopropyl). The latter showed min. inhibitory concentration of  $\leq 0.05$   $\mu\text{g/mL}$  against Escherichia coli and Klebsiella pneumoniae.

IT 123161-42-2P

(preparation of, as bactericide)

RN 123161-42-2 HCAPLUS

CN Benzoic acid, 2,3,5-trifluoro-4-[1-(1-phenylethoxy)ethenyl]-, ethyl ester (9CI) (CA INDEX NAME)



IC ICM C07D215-56

ICA A61K031-47

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))  
Section cross-reference(s): 1

IT	123160-48-5P	123160-49-6P	123160-50-9P	123160-51-0P
	123160-52-1P	123160-53-2P	123160-54-3P	123160-55-4P
	123160-56-5P	123160-57-6P	123160-58-7P	123160-59-8P

123160-60-1P	123160-61-2P	123160-62-3P	123160-63-4P
123160-64-5P	123160-65-6P	123160-66-7P	123160-67-8P
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123161-56-8P	123161-57-9P	123161-58-0P	123176-68-1P
123176-69-2P	123176-70-5P	123183-41-5P	

(preparation of, as bactericide)

L11 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:492323 HCAPLUS

DOCUMENT NUMBER: 111:92323

TITLE: Preparation of (ortho-substituted)benzyl  
carboxylates as fungicidesINVENTOR(S): Schuetz, Franz; Sauter, Hubert; Schirmer, Ulrich;  
Wolf, Bernd; Ammermann, Eberhard; Pommer, Ernst  
Heinrich

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

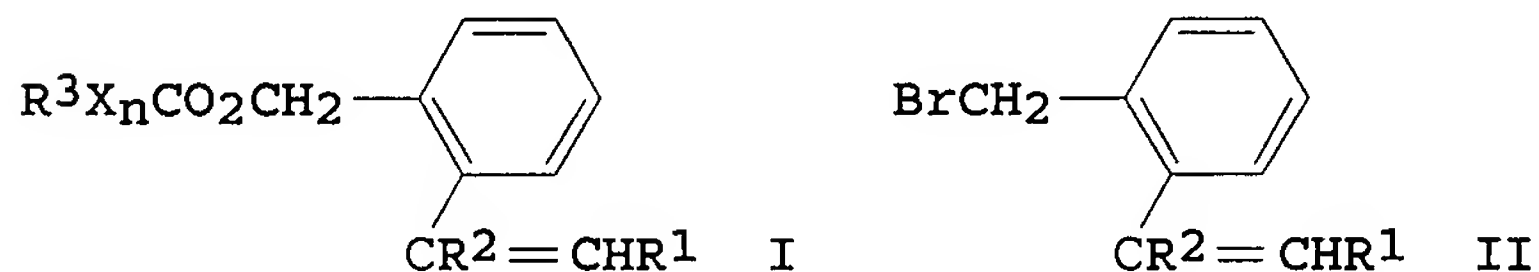
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 310954	A1	19890412	EP 1988-116173	19880930
EP 310954	B1	19901122		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
DE 3733870	A1	19890427	DE 1987-3733870	19871007
IL 87825	A	19920329	IL 1988-87825	19880920
CA 1315277	C	19930330	CA 1988-578569	19880927
AT 58522	T	19901215	AT 1988-116173	19880930
DD 274557	A5	19891227	DD 1988-320449	19881004
JP 01128959	A	19890522	JP 1988-250043	19881005
AU 8823464	A	19890413	AU 1988-23464	19881006
AU 611485	B2	19910613		
HU 49562	A2	19891030	HU 1988-5186	19881006
HU 200587	B	19900728		
ZA 8807493	A	19900627	ZA 1988-7493	19881006

CZ 283689	B6	19980617	CZ 1988-6663	19881006
US 4952720	A	19900828	US 1988-254696	19881007
PRIORITY APPLN. INFO.:			DE 1987-3733870	A 19871007
			EP 1988-116173	A 19880930

OTHER SOURCE(S): CASREACT 111:92323; MARPAT 111:92323  
 ED Entered STN: 16 Sep 1989  
 GI



AB The title compds. I [R1 = alkoxy, alkylthio, halo, NH2, alkylamino; R2 = alkoxycarbonyl, CN, CONH2; R3 = H, halo, CN, (un)substituted aryl or aryloxy, etc.; X = alkylene, haloalkylene, hydroxyalkylene: n = 0, 1] are fungicides, prepared by the reaction of the corresponding benzyl bromide II with a alkali metal, alkaline earth metal or ammonium salt of R3XnCO2H in a solvent, optionally in the presence of a catalyst. BzOH was converted into the K salt by treatment with KOH in EtOH, followed by reaction with II (R1 = OMe, R2 = CO2Me) in DMF, to give Me  $\alpha$ -(2-benzoyloxymethylphenyl)- $\beta$ -methoxyacrylate. (E)-I [R1 = OMe, R2 = CO2Me, R3 = H, Xn = (CH2)4CHMeCH2] (III) (0.025%) controlled Puccinia recondita on wheat, in pot expts. A formulation comprised III 20, Ca dodecylbenzenesulfonate 2, fatty alc. polyglycol ether 8, phenolsulfonic acid-urea-formaldehyde condensate 2, and paraffinic mineral oil 68% by weight

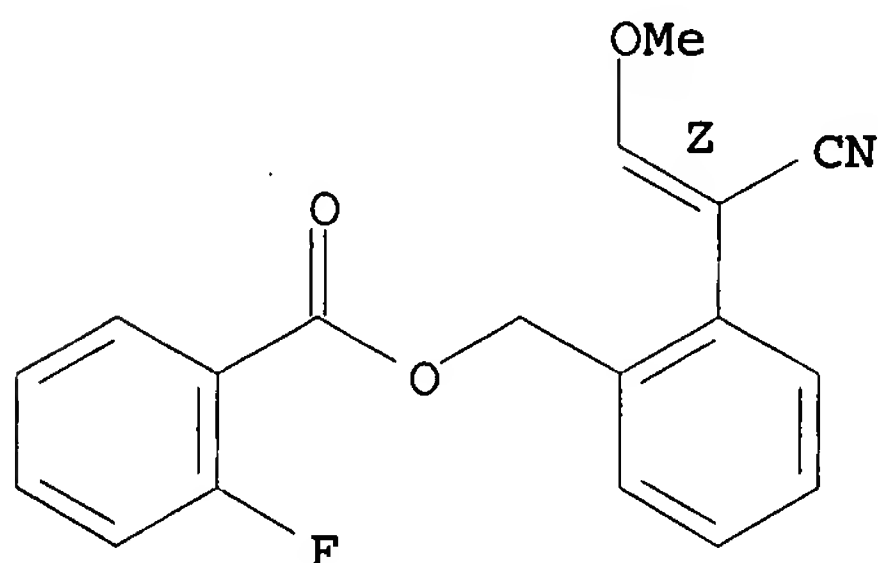
IT 122143-88-8P

(preparation of, as agrochem. fungicide)

RN 122143-88-8 HCAPLUS

CN Benzoic acid, 2-fluoro-, [2-(1-cyano-2-methoxyethenyl)phenyl]methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 122143-38-8P 122143-39-9P 122143-40-2P

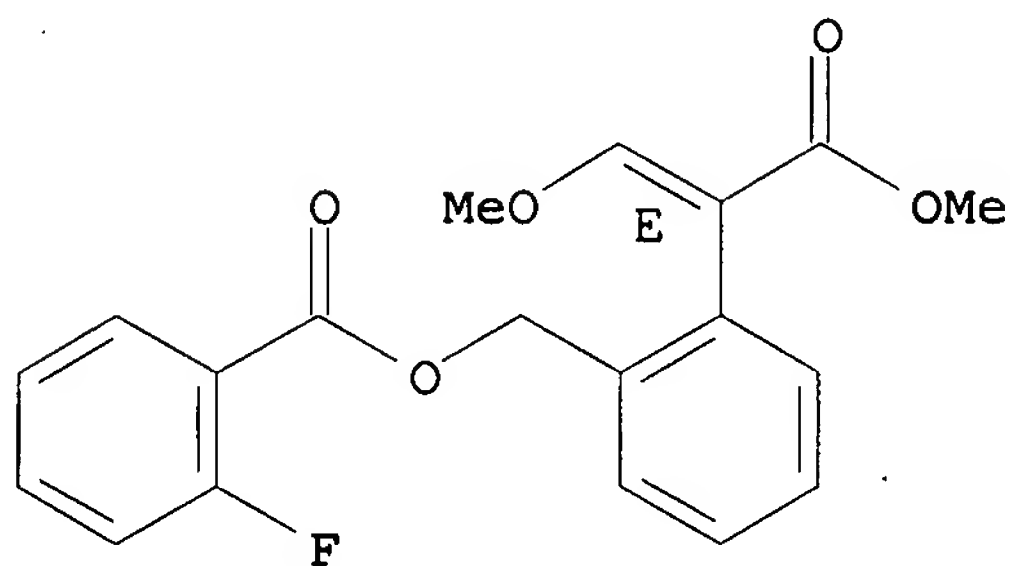
122143-41-3P 122143-86-6P

(preparation of, as fungicide)

RN 122143-38-8 HCAPLUS

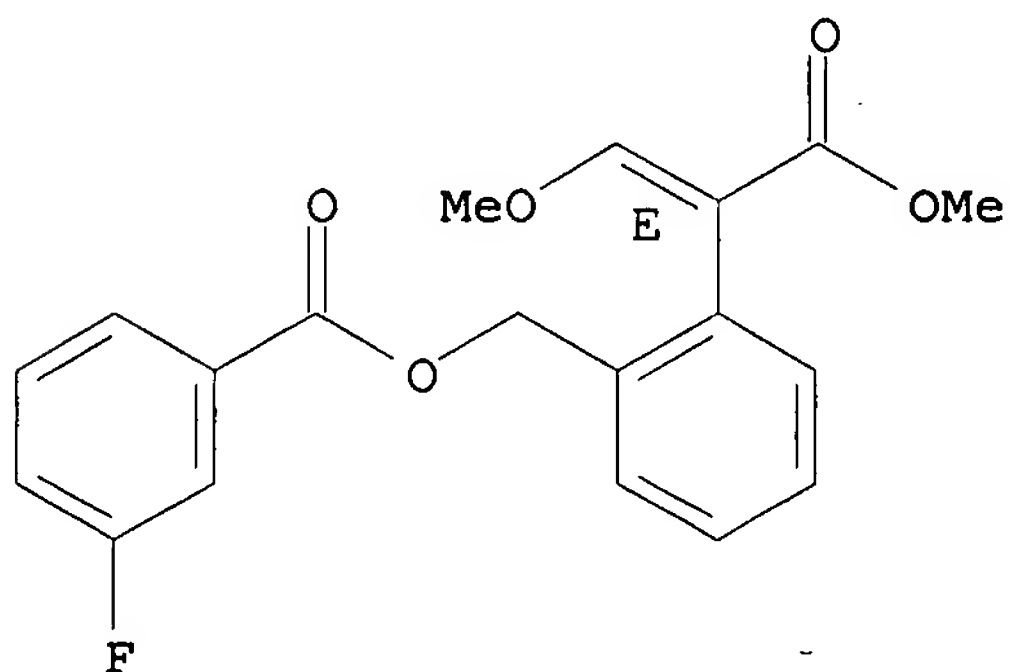
CN Benzeneacetic acid, 2-[[2-(2-fluorobenzoyloxy)methyl]- $\alpha$ -(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



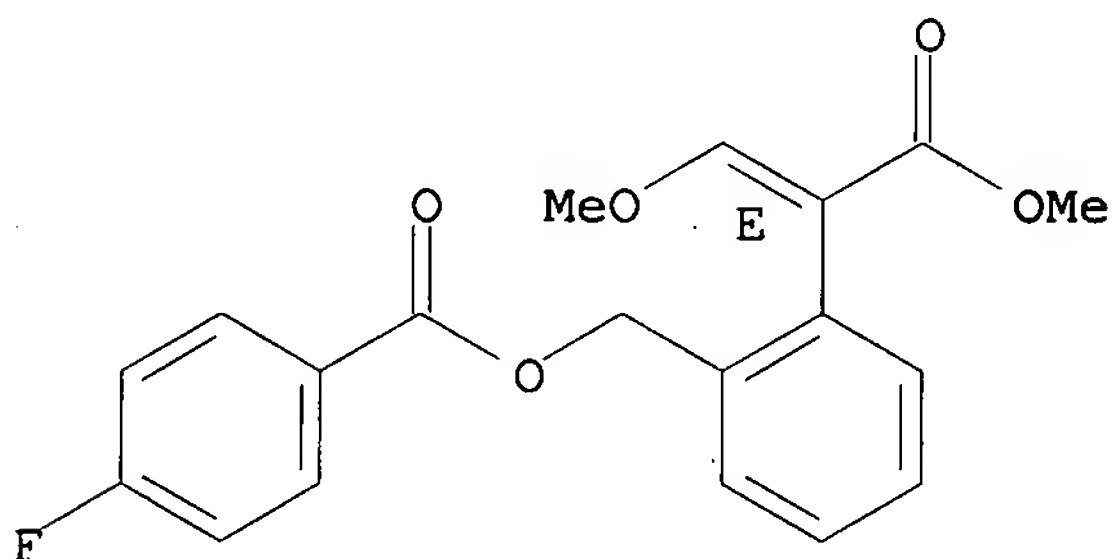
RN 122143-39-9 HCAPLUS  
 CN Benzeneacetic acid, 2-[[[(3-fluorobenzoyl)oxy]methyl]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



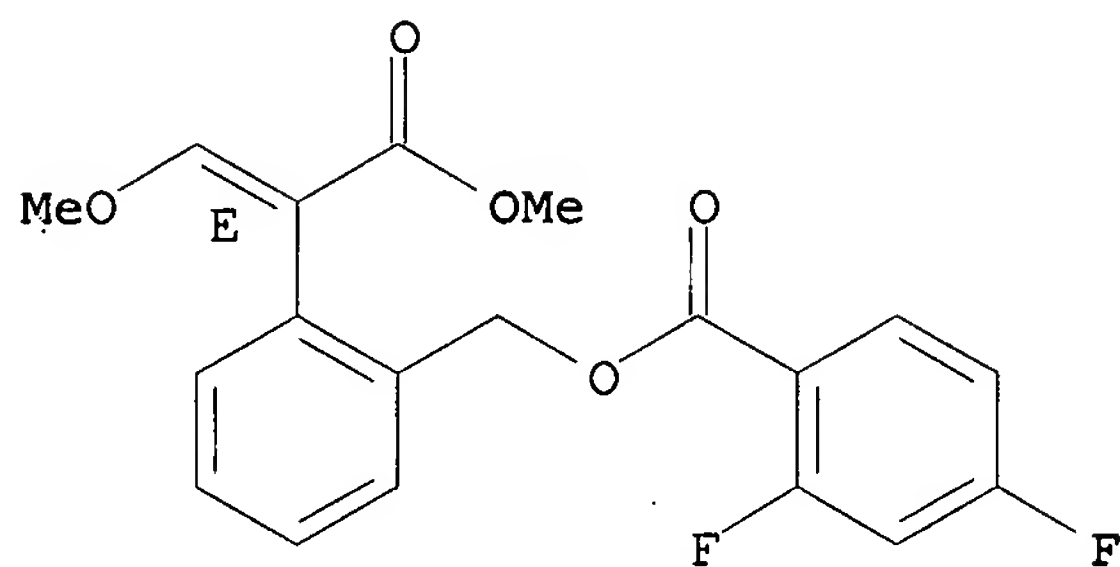
RN 122143-40-2 HCAPLUS  
 CN Benzeneacetic acid, 2-[[[(4-fluorobenzoyl)oxy]methyl]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 122143-41-3 HCAPLUS  
 CN Benzeneacetic acid, 2-[[[(2,4-difluorobenzoyl)oxy]methyl]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

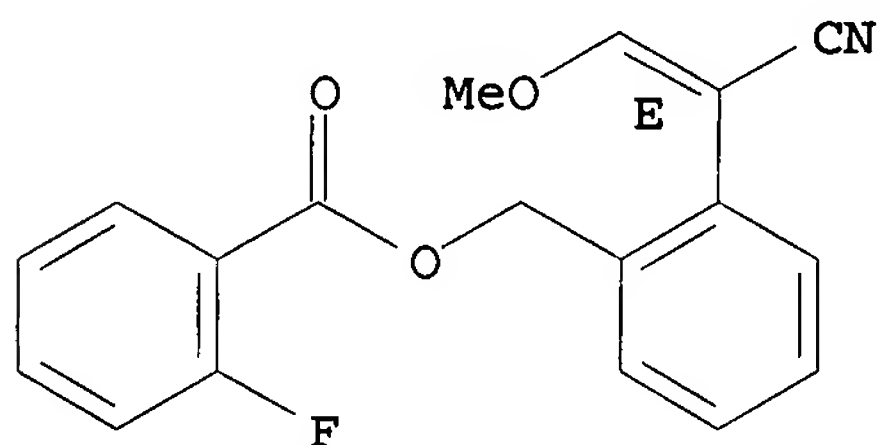
Double bond geometry as shown.



RN 122143-86-6 HCAPLUS

CN Benzoic acid, 2-fluoro-, [2-(1-cyano-2-methoxyethenyl)phenyl]methyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C07C069-734

ICS C07C067-11; C07C069-78; C07C103-26; C07C121-70; C07C149-273;  
C07C101-12; A01N037-36; A01N053-00; A01N037-34; A01N037-18

CC 5-2 (Agrochemical Bioregulators)  
Section cross-reference(s): 25

IT **122143-88-8P** 122143-89-9P  
(preparation of, as agrochem. fungicide)

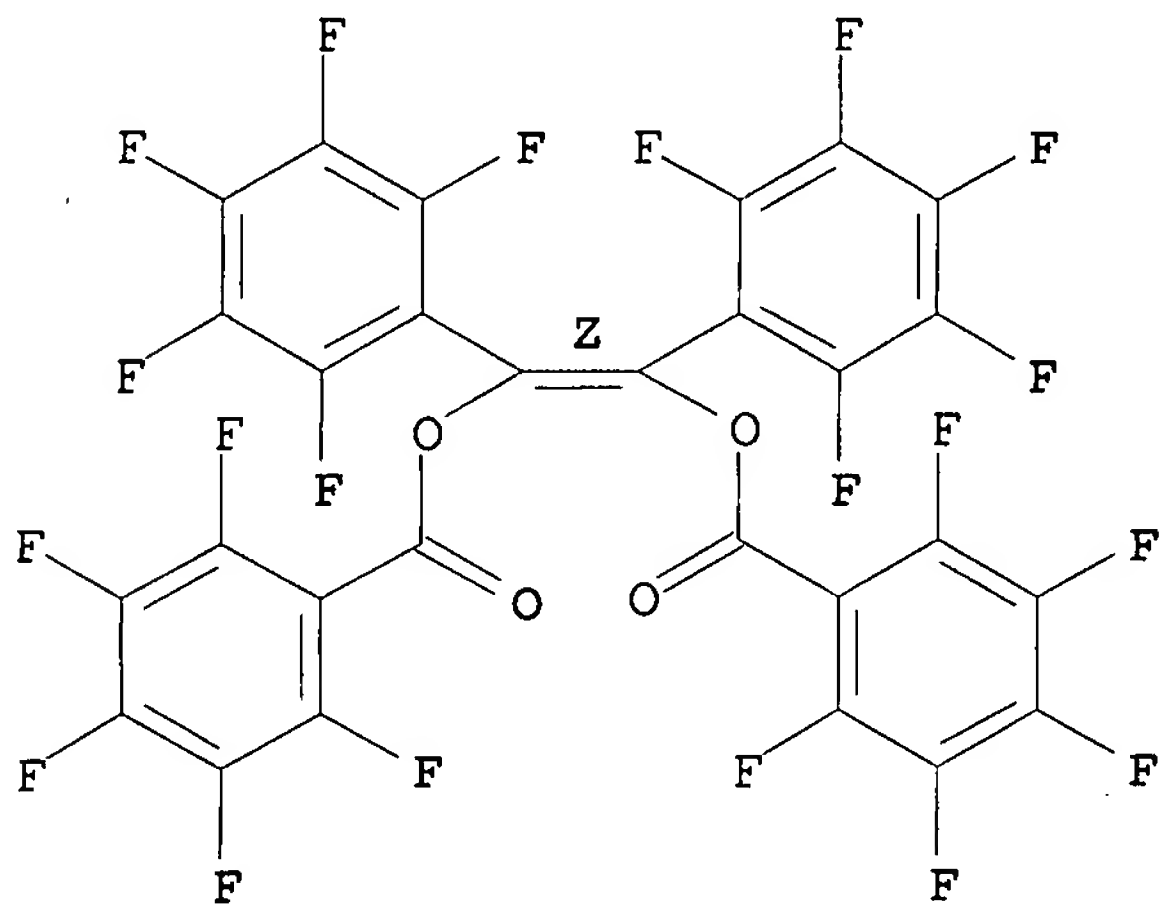
IT 122143-14-0P 122143-15-1P 122143-16-2P 122143-17-3P  
122143-20-8P 122143-21-9P 122143-22-0P 122143-23-1P  
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122143-32-2P 122143-33-3P 122143-34-4P 122143-35-5P  
122143-36-6P 122143-37-7P **122143-38-8P**  
**122143-39-9P** **122143-40-2P** **122143-41-3P**  
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122143-82-2P 122143-83-3P 122143-84-4P 122143-85-5P  
**122143-86-6P** 122143-87-7P 122168-50-7P 122168-51-8P  
122168-52-9P

(preparation of, as fungicide)

L11 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1989:223083 HCAPLUS

DOCUMENT NUMBER: 110:223083  
TITLE: Structure of cis-bis(pentafluorophenyl)vinylene bis(pentafluorobenzoate)  
AUTHOR(S): Cheek, Graham T.; Dudis, Douglas S.  
CORPORATE SOURCE: Chem. Dep., US Nav. Acad., Annapolis, MD, 21402, USA  
SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (1989), C45(4), 617-20  
CODEN: ACSCEE; ISSN: 0108-2701  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
ED Entered STN: 10 Jun 1989  
AB The title compound is triclinic, space group P.hivin.1, with a 8.200(1), b 9.899(2), c 18.160(3) Å,  $\alpha$  75.75(1),  $\beta$  81.40(1), and  $\gamma$  73.47(1)°;  $d_c = 1.90$  for  $Z = 2$ . The final  $R = 0.0485$  and  $R_w = 0.0621$  for 3699 reflections. Atomic coordinates are given. The compound contains no H atoms. The benzoate Ph rings of the title compound are rotated 36.2 and 36.4° relative to the carboxyl group whereas in the nonperfluorinated parent compound these rings are coplanar with the carboxyl groups. The average torsion angle about the double bond is also larger in the title compound  
IT 120711-09-3, cis-Bis(pentafluorophenyl)vinylene bis(pentafluorobenzoate) (crystal structure of)  
RN 120711-09-3 HCAPLUS  
CN Benzoic acid, pentafluoro-, 1,2-bis(pentafluorophenyl)-1,2-ethenediyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 75-8 (Crystallography and Liquid Crystals)  
Section cross-reference(s): 25  
IT 120711-09-3, cis-Bis(pentafluorophenyl)vinylene bis(pentafluorobenzoate) (crystal structure of)

=> d his nofile

(FILE 'HOME' ENTERED AT 11:57:35 ON 14 SEP 2007)

FILE 'HCAPLUS' ENTERED AT 11:57:41 ON 14 SEP 2007

L1 1 SEA ABB=ON PLU=ON US20060178468/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 11:57:53 ON 14 SEP 2007

L2 16 SEA ABB=ON PLU=ON (796080-88-1/BI OR 796080-94-9/BI OR  
110-75-8/BI OR 117731-86-9/BI OR 123270-98-4/BI OR  
143789-39-3/BI OR 4522-93-4/BI OR 796080-87-0/BI OR  
796080-89-2/BI OR 796080-90-5/BI OR 796080-91-6/BI OR  
796080-92-7/BI OR 796080-93-8/BI OR 796080-95-0/BI OR  
796080-96-1/BI OR 796080-97-2/BI)

L3 STR

L4 26 SEA SSS SAM L3

L5 STR L3

L6 1 SEA SSS SAM L5

L7 91 SEA SSS FUL L5

L8 9 SEA ABB=ON PLU=ON L7 AND L2

L9 7 SEA ABB=ON PLU=ON L2 NOT L8

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